

ACER C7:
THE \$199
CHROMEBOOK

SAMSUNG'S
TINY TAKE ON
THE GALAXY SIII

IS THE GALAXY CAMERA READY TO
REPLACE YOUR SMARTPHONE?

DISTRO

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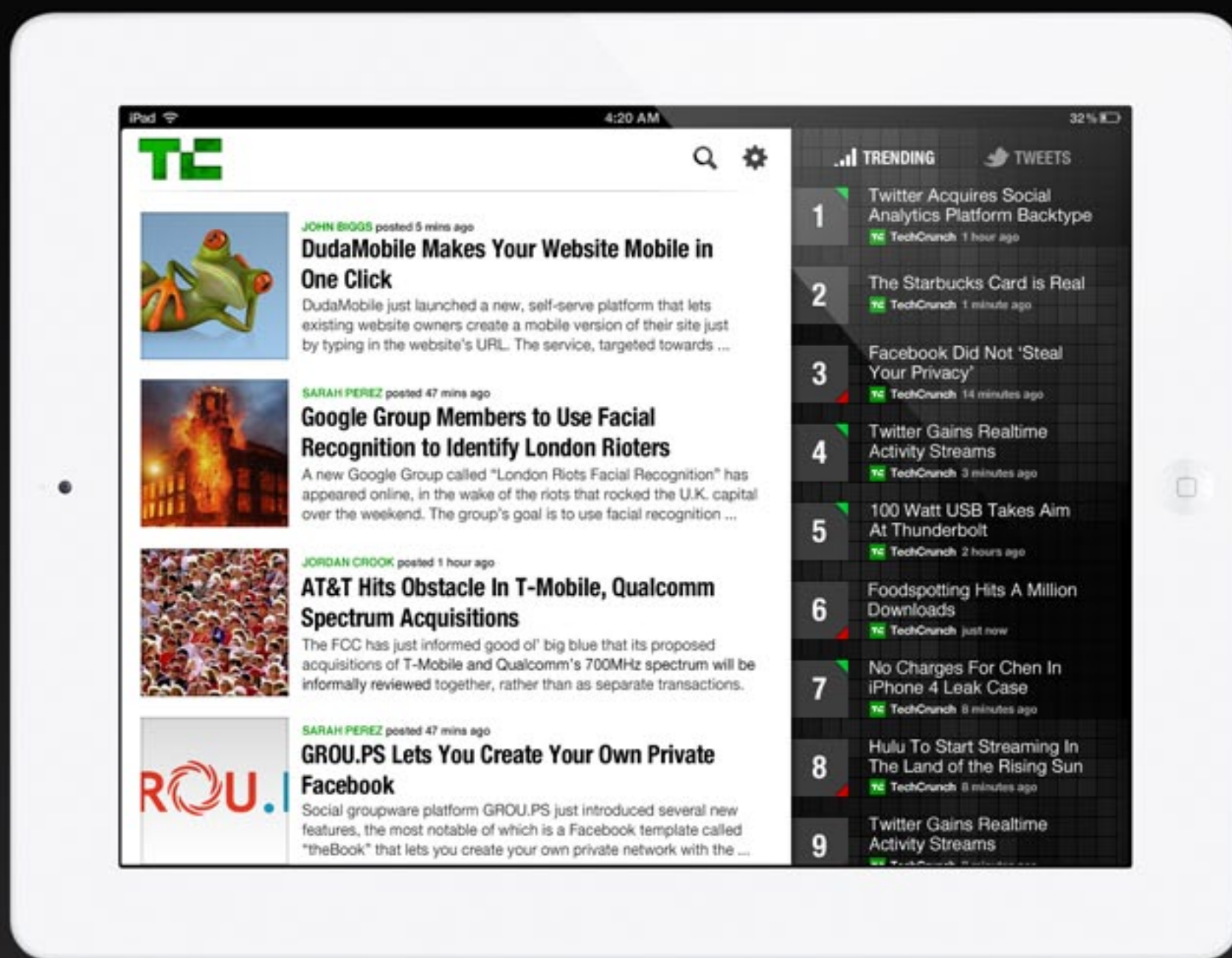
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ISSUE 69

DISTRO

12.07.12

TABLE OF CONTENTS

ENTER



EDITOR'S LETTER
Homecoming
By Tim Stevens



INBOX
False Charges, LBS in Low Gear and Wii the Family



EYES-ON
Timbuk2 Power Series Bags



HANDS-ON
Hybrid Sports Bicycle, BookBook, Scanadu Scout Tricorder



WEEKLY STAT
Cyber Holiday
By Jon Turi



RECOMMENDED READING
The Aesthetics of the Lytro and More
By Don Melanson

FORUM



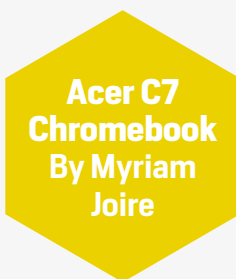
SWITCHED ON
The Blind Men and the Surface Pro
By Ross Rubin

MODEM WORLD
Review Sites are Broken
By Joshua Fruhlinger

REVIEW



Samsung Galaxy S III mini
By James Trew



Acer C7 Chromebook
By Myriam Joire

FEATURE



Two Weeks with an Android Camera
By Zach Honig

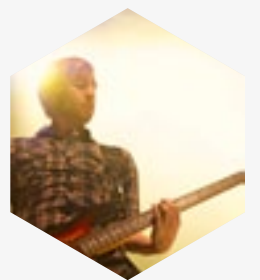


The New Face of PayPal
By Darren Murph

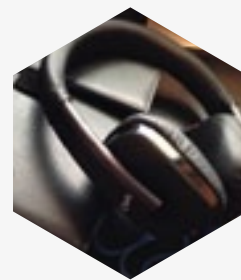
ESC



VISUALIZED
Silo 468
Helsinki



Q&A
Jon Thompson of The Almost



IRL
Klipsch Image X7i, Razer BlackShark, BlueAnt Embrace



REHASHED
Hoverless and Wii're Not Happy



TIME MACHINES
Dimensional Views

On the Cover:
Photograph by
Darren Murph



HOMECOMING

DISTRO
12.07.12

EDITOR'S
LETTER



Another week is over, dear readers, and it's been an eventful one for me. I spent a few days in Detroit, wrapping up some testing for the AOL Autos Technology of the Year award, to be given out at CES in just over a month. This means I got a little seat time in some spectacular autos like the Audi S7 and Chrysler 300C SRT8, sampling some amazing new infotainment and safety technologies — and some terrible ones, too. Which stood out? You'll have to wait for the CES awards ceremony to find out.

Otherwise, it was a reasonably quiet week in news, but some of the biggest stories came just as we're heading to press. Apple CEO Tim Cook, in an interview with NBC's Brian Williams, gave a little clarity to the mystery of the "Assembled in USA" iMacs. He confirmed this isn't just an anomaly, that Apple is planning on bringing assembly of one of its "existing Mac lines" to the States. Which line, exactly, remains to be seen, but the iMac would be a logical choice, since it's already being run in limited numbers in the US. The Mac Pro also makes sense, a low-volume machine that features (relatively) simple construction.

Cook also indicated that the Apple

TV is no longer just a "hobby," as it has been classified in years past. Television in general has now become an "area of intense interest," which would be yet another pointer to the Cupertino company making a big, big push into the broader home entertainment space. Could we finally see the oft-predicted television made by Apple in 2013, or might the current little Apple TV device get a little more love? Stay tuned.

Netflix, meanwhile, completed what can only be called an absolute coup on the content front. In a deal that must have required at least one comically large check, Netflix purchased exclusive rights to stream first-run Disney films, of both the animated and live-action varieties. The US-only deal begins in 2016, a future date by which time I envision all actors will have been replaced by animated dop-pelgängers anyhow. Starting this week many historic Disney films appeared for streaming, too, so if your kid's DVD copy of "Pocahontas" has been rolled across the living room floor one too many times, it can now be safely retired.

Also being retired is News Corporation's *The Daily*. The once iPad-only outlet launched with huge fanfare in



“... I got a little seat time in some spectacular autos like the Audi S7 and the Chrysler 300C SRT8.”


early 2011 but sadly never developed the kind of following necessary to support the level of staffing Rupert Murdoch built it upon. That staff is now being split up, some moving over to work on the *New York Post*, others sadly to be let go. We genuinely hate to see an innovative property like this coming to a close and we hope that those cut free land back on their feet quickly.


In more sad news, Polymer Vision, the struggling maker of flexible e-ink displays and 2008's RADIUS (a GSM device with a fold-out display for reading PDFs and simple web surfing) appears to have come to the end of its rope. The company was limping along under the ownership of Wistron, but now has been more or less shuttered altogether, existing only in a name attached to a big stack of intellectual property.

Google released major updates to its Gmail apps on both Android and iOS. The Android version gets gesture support for zooming as well as swipes for deletes, plus the ability to attach videos. The iOS update, meanwhile, is more of a complete re-tooling with a new UI and lots of new

functionality, including multiple-account support. Huzzah for that.

Finally, we got our first bit of chemical analysis back from Mars, courtesy of the Curiosity, and you don't have to go by the handle "Heisenberg" to find it fascinating. Our six-wheeled roving friend abroad scooped up some dirt, dumped it into the Sample Analysis at Mars (SAM) suite and then carefully parsed the results, which included sulfur, chlorine and, most intriguingly, some carbon-based materials. Organic life on Mars? NASA wants more time to be sure that such materials aren't just stowaways that made the trip from Earth, leaving us wondering if NASA shouldn't have given this thing an extra bath before zipping it up and throwing it out of orbit.

In this week's Distro you can see just what it's like to live with Samsung's Galaxy Camera, a fascinating blend of compact shooter and Android. We also have reviews of the Samsung Galaxy S III mini and Acer's \$199 C7 Chromebook, along with an interview with PayPal's David Marcus on his attempts to improve the reputation of his company. Modem World takes on the review sites, Switched On examines people's varying reactions to the Surface Pro and Jon Thompson, bassist for The Almost, does Q&A. So, please recline and get immersed. 



TIM STEVENS
EDITOR-IN-CHIEF,
ENGADGET



FALSE CHARGES, LBS IN LOW GEAR AND Wii THE FAMILY



Touch article names
to read full threads

DISTRO
12.07.12

INBOX



**EDITOR'S LETTER:
A LITTLE WII TAKES
OFF TO THE GREAT
WHITE NORTH
ISSUE 68,
NOVEMBER 30TH, 2012**

“Being a Canadian and often not being able to acquire a US only product due to various limitations, I get a little peeved. As for NoA testing the waters for a stripped down Wii with Wiimote and Nunchuck bundle, I don't think you're missing out on this gutted product much. I'm sure many people will be

selling these across borders through auction services and such.”

—VLUKYNIUK

**THIS IS THE MODEM
WORLD: FEAR AND
LOATHING IN THE LOCAL
BIKE SHOP
ISSUE 68,
NOVEMBER 30TH, 2012**

“You can still have the relationship with your local bike shop (LBS). It will just have to occur via the service department. I bought my bike

online because I could get what I wanted at a good price. But I deal with my LBS whenever I need adjustments, a tune up, or serious repair expertise. They are super helpful and friendly. And they are happy to have the business. So don't give up on the LBS yet. You'll be happy they're there when you bend your derailleur in a crash or have that annoying problem with gears changing on their own.”

—VIRXES

“The point is that sellers used to be very warm and cheerful when they helped you buy something. They used to know about almost everything in the shop, and if they did not know something, they had a co-seller who knew what they didn't. Now the sellers are just lazy. Too bad, I would have loved that nice experience. But alas, I am too young to have experienced it. :(”

—SEANPICKMAN



Wii U
ISSUE 68,
NOVEMBER 30TH, 2012

“The Wii sold the amounts it did because your average non-gamer didn’t have to sit and push a joystick and buttons, and could include non-gamer friends and families.

This offers basically the same control mechanism as any PlayStation or Xbox, alienating non-gamers, and will soon look outdated to hardcore gamers compared to the

next-gen consoles. It’s a fail all-around.”

—SUPESSCOTT

“I went ahead and purchased the Wii U for two main reasons. One, I have an undeniable love for Nintendo and their innovative ways, they seem to try new and different ways of making new consoles, only exception, the GameCube. Second, their main 1st party games (*Zelda*, *Mario*, *SSB*). Besides that, I’ve been playing the *Call of Duty Black Ops 2* for the past two days and, it’s freaking genius

“Individually, Wii U will not live up to the hype. As a family-pack, it succeeds like no other, and that’s where Nintendo is aiming actually. So [I] can’t really blame them with a gamer’s perspective. They’re trying to balance out ‘gamers’ and ‘family-friendly games,’ and it’s not an easy task to do. But at least they’re trying with better success than the PS MOVE and KINECT. Fail or not I still have respect for Nintendo and their intentions to try something different.”

—UOPJ06

on the gamepad — just my \$0.02.”

—OSCARR

LENOVO THINKPAD TWIST
ISSUE 68,
NOVEMBER 30TH, 2012

“Purchased one the day Windows 8 came out based on the 7hr battery life advertised. Returned when it wouldn’t last past 4 hrs. Sure fire way to piss off consumers by advertising blatantly false specs (‘Lenovo’s own product team also saw battery life results hovering in the four-hour range.’). I’ll never buy another Lenovo product unless it can be proven to cure cancer.”

—LEEP

“HD 4000, 1,336 x 768 and 4 hours of battery for \$900? Is this 2006 again? No wonder Microsoft is blaming OEMs for slower than expected Win8 sales.”

—KINGHARKINIAN

“Battery life is my highest priority, and it’s a deal breaker for me here.”

—TKDCHAMPXI





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TIMBUK2 POWER SERIES BAGS



RUCKSACK STORAGE

In terms of additional space for safekeeping, the Power Q backpack offers a tricot-lined laptop space (capable of handling a 17-inch portable machine), Swing Around access and a smattering of compartments.





HYBRID SPORTS BICYCLE (HSB)



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The LA Auto Show isn't just loaded with flashy concept cars from auto industry heavyweights, it's also a breeding ground for innovation in the transportation industry as a whole. While cruising the halls of the Los Angeles Convention Center, a unique contraption caught our eyes. The Hybrid Sports Bicycle (HSB) is a triple threat that runs on gas, electricity and good old-fashion hu-

man pedaling. The project is currently seeking investors, with its creator, Tomas Bubilek, targeting a retail price somewhere between \$6,000 and \$7,000. For those of you who might think that this is a high premium, we've definitely seen

hybrid bikes that far exceed this toll. So, if you're in the business of being an early adopter, this might be a way to replace that Segway you bought a few years back.

PRICE: TBD

AVAILABILITY: TBD

THE BREAKDOWN: THE HSB OFFERS THREE WAYS TO POWER THAT NEXT AFTERNOON CRUISE THROUGH YOUR PARK OF CHOICE.





BOOKBOOK FOR iPhone 5

It took a little longer than some of those *other* cases, but Twelve South's BookBook for iPhone 5 is now shipping en masse. Some of those who pre-ordered began receiving their units already, but if you missed that wave, there's no need to gesture for the panic button. The outfit's newest wallet / iPhone case is actually more than just a resized version of the prior one; indeed, it finally figured out how to add a rear camera hole without worry of flash echo, and there's a new snap-in mechanism that holds your phone in place. The clever exterior remains largely the same, and there's still room for your most important IDs and credit cards as you flip it open. We were pretty big fans of the prior build, but the addition of the camera hole makes this one a no-brainer for fans of the style. You can grab one of your own now, but you'll be asked to fork over \$60 to secure the goods.

PRICE: \$59.99

AVAILABILITY:
NOW AVAILABLE

THE BREAKDOWN:
TWELVE SOUTH'S
CASE FOR THE LATEST IPHONE
WEARS A CLASSY EXTERIOR
AND DESIGN TWEAKS FOR
BETTER USABILITY.




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SCANADU SCOUT TRICORDER

Scanadu is a company that's answered the X Prize bell and is aiming to bring a tricorder to market by late next year for a mere \$150. Called Scout, the tricorder is roughly two inches square and half an inch thick and packs a rechargeable battery, IR, EEG and EKG scanners, plus an accelerometer, Bluetooth radio and a micro-USB port. The hardware can track a person's heart rate, breathing rate, body temperature, pulse transit (essentially systolic blood pressure) and blood oxygenation.

To gather that data, users must first download the free Scout app and pair the tricorder hardware with their Android, iOS or BB7 handset via Bluetooth. Then it's simply a matter of pinching the device between their thumb and finger and holding it against their temple for 10 seconds. From there, the app can track your data over the long haul and provide an accurate picture of your health. We got to see the prototype version of Scout and the companion app, and while we can't confirm the veracity of the results, we can confirm that the app's easy to use and it only took around 10-15 seconds to pull the health info from the device. Unfortunately, because the prototype system isn't final, and Scanadu's still in the midst of obtaining FDA approval, we weren't allowed to take any pictures or videos of it in action. Rest assured, however, the device is quite real and quite functional. 



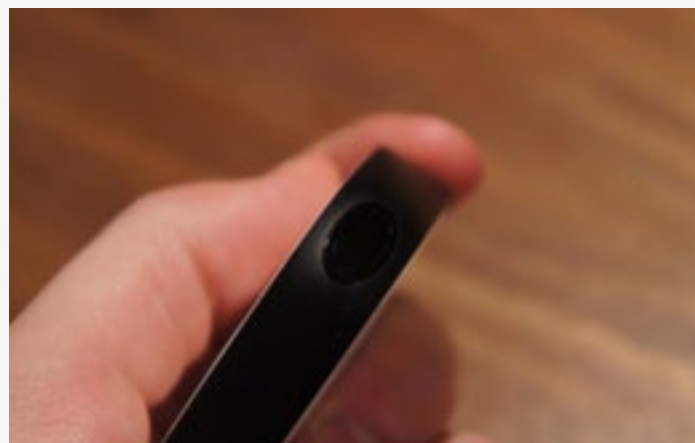
PRICE: \$150

AVAILABILITY:
LATE 2013

THE BREAKDOWN:
SCANADU'S
DIMINUTIVE
SCOUT MONITORS AND
RECORDS A VARIETY OF HEALTH
STATS WITH THE HELP OF YOUR
TRUSTY HANDSET.



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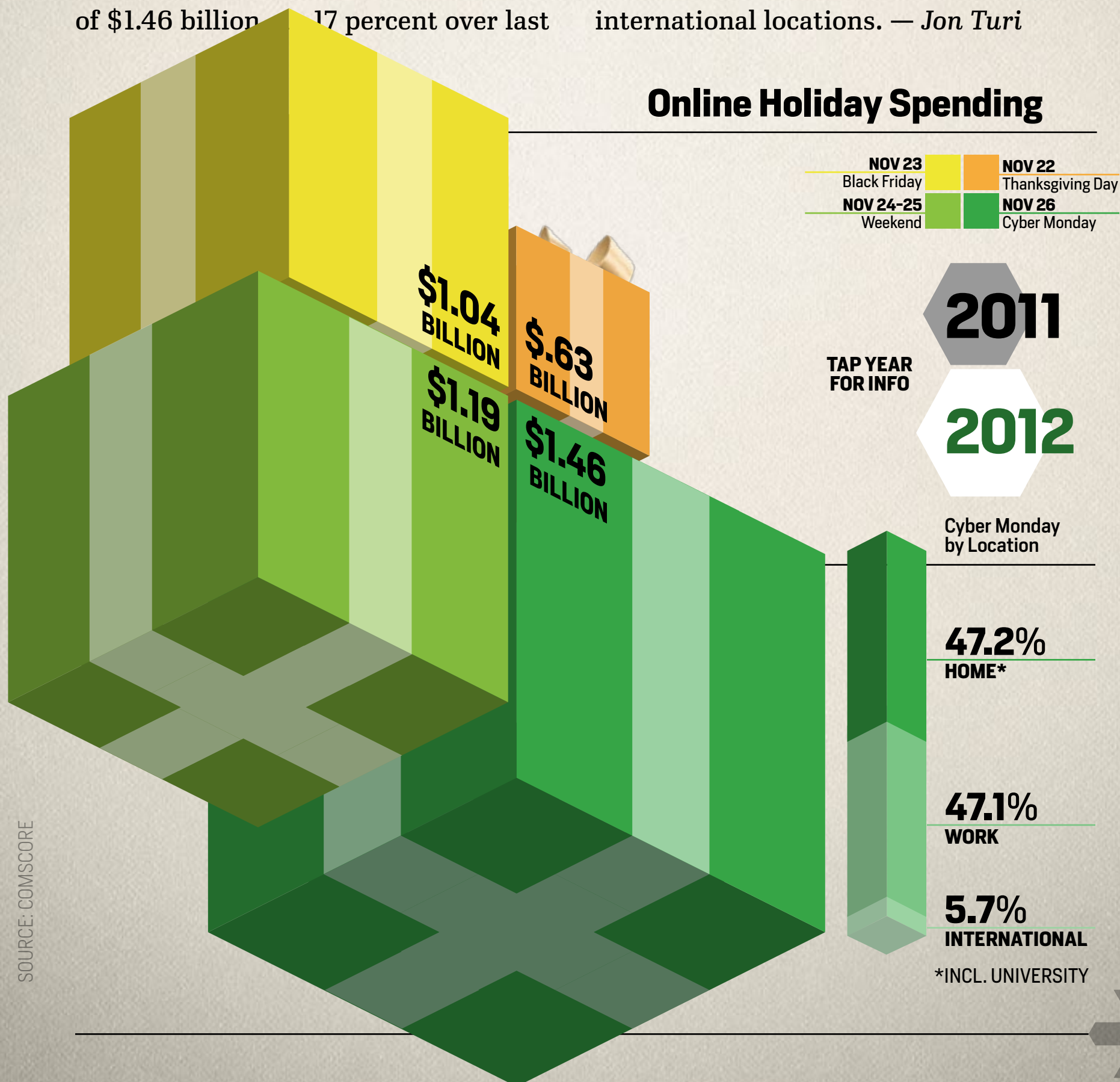


Cyber Holiday

The holiday shopping season is officially in full swing and according to a recent ComScore report, online sales are higher than ever. Digital shoppers have spent over \$16.4 billion at US websites so far this holiday season and Cyber Monday sales hit a record high of \$1.46 billion — 17 percent over last

year, making it the biggest day of online spending in history. Almost half of this bargain hunting was surely done during coffee breaks as 47.1 percent originated from work computers, while 47.2 percent shopped from the comfort of home. However, it wasn't just Americans who got in on the action, as the remaining 5.7 percent of cyber-shoppers hailed from international locations. — *Jon Turi*

Online Holiday Spending





A Machine that Makes Cameras: The Aesthetics of the Lytro

By Ian Bogost
The Atlantic

It may not have exactly become a runaway success in the first year it's been available, but the Lytro camera did certainly get people talking. In this essay for *The Atlantic*, Ian Bogost goes one step further than most, examining how the Lytro, and light field photography in general, is changing the very idea of what a photograph is. To do that, Bogost goes back to the very beginning to trace the major shifts in photographic equipment — of which he finds relatively few — before examining the Lytro itself, which he counts as one of those shifts. Indeed, he sees it as a change in photography unlike any other, with the camera producing an image that is not really an “image” at all but, as he puts it, “a machine capable of producing many possible renditions of a similar image.” That doesn't make it the lightest of reads, but it's an important one for those interested in the history and possible future of photography.

**Atari Teenage Riot:
The Inside Story Of Pong
and the Video Game
Industry's Big Bang**
By Chris Stokel-Walker
BuzzFeed FWD

It's been a big year for Atari nostalgia, first with the 40th anniversary of the company itself earlier this year, and more recently with the 40th anniversary of its breakthrough game: *Pong*. The standout bit of recent writing on the latter comes courtesy of *BuzzFeed FWD*, which went long (and GIF-animated) for this extensive look at its history.

**The Rise and Fall of the
Obscure Music Download Blog**
By Mark Allen
The Awl

They never rose to quite the level of attention and controversy that eventually brought down Napster and other music sharing services, but music download blogs are also a shadow of their former selves. Here, Mark Allen talks to a number of blog creators about that short-lived heyday, and why so many, which were often key in promoting more obscure music, ultimately shut down.

Moral Machines
By Gary Marcus
The New Yorker

Self-driving cars have made considerable technical progress in recent years, but as Gary Marcus suggests in this piece for *The New Yorker*, they and other robots will also have to make advances in another area if they're truly to become part of our daily lives in the decades ahead: morality. Or, as he quotes Colin Allen, “We don't want to get to the point where we should have had this discussion 20 years ago.”



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THE BLIND MEN AND THE SURFACE PRO

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12.07.12

ESC

SWITCHED
ON

BY ROSS RUBIN

When Microsoft announced the Surface RT, it seemed clear that the ARM-based product — with its precious adornments such as the kickstand and, of course, typing covers — sought to appeal to those wanting to do more than is typically done with tablets. Microsoft, straight-faced, calls the Surface RT a PC, but with a connotation that it is trying to transform. There's less ambiguity around the Surface Pro. It has a capable Intel processor and runs virtually any Windows app. While someone from an earlier time might not recognize it as a PC turned off (especially with a closed touch cover), booting it up into Outlook would provide a convincing case.

In the story of the blind men and the elephant, the protagonists each discover some element of the majestic animal and draw conclusions about its nature without understanding the bigger (literally, in that case) picture. Now that we know the size of the Surface Pro's elephant in terms of how much it might feed from our wallets, its relative value and competitiveness will vary greatly

depending upon which assumptions prospective buyers have when considering the product.

THE TABLET BUYER

If someone has been sold on the idea of a tablet, they are likely looking for a larger device primarily to have a personal media experience. Microsoft has put a lot of implicit emphasis around Windows 8 devices offering “the best of both worlds” of tablet and notebook computing, a ploy that may play out in the success of various notebook / tablet hybrids. But it is trying to quickly re-educate a market that is still being primed on what tablets are. At least in terms of where the market for tablets is today, the Surface Pro looks expensive and app-poor in terms of the touch experience with half the battery life of standard-bearer alternatives. Its display resolution is high compared to that of the Surface RT, but still below that of much less expensive competitors such as the latest iPad and Nexus 10.

THE NOTEBOOK BUYER

The Surface's Touch Cover is one of its most cleverly conceived compromises —






“Microsoft, straight-faced, calls the Surface RT a PC.”

powered by the Surface itself to avoid any pairing setup or separate battery. It is significantly better than typing on glass, but not much thinner than the tactile keyboard that provides a much better typing experience.

Still, while the Surface may have best-in-class keyboard options, using it with the kickstand extended actually creates a relatively large footprint, and balancing the duo on your lap can be awkward (as it is for many iPad keyboard cases). The Surface Pro, of course, brings compatibility with the huge library of desktop Windows apps, but its trackpad is almost comically small. At \$899, it's not particularly cheap compared to some Ultrabooks and its battery life still doesn't overwhelm, but it's far more competitive, particularly for a touch-enabled model.

THE WINDOWS 8 BUYER

Microsoft's rationale was to create a device that showcased Windows 8 and the Pro model embraces Windows 8's aspirations better than any of its competitors. When compared with Surface RT, it's less of a bet on the future; buyers will probably spend much of their Surface Pro time with the keyboard outstretched, but will be ready to take advantage of the new generation of touch apps as well as Windows 8 niceties such as Live Tiles and Charms. Then, of course, there is stylus input. It is also not unique in the tablet world as Samsung has made a big bet on it in its Galaxy Note products. But Microsoft's ability to integrate such input as opposed to Samsung, which must layer on, is key to Windows' proposition.

Unfortunately for Microsoft at this point, apps are more key to selling devices than operating system features. But the picture isn't nearly as bleak as it may seem. As with the original fable, none of the individual perspectives are quite right; and Surface Pro is more than — or at least different than — the sum of its individual parts. Microsoft's first tentative step into its own Windows PCs obviously leaves much ground uncovered. Along the tablet / notebook spectrum, Surface RT is a tablet on which you type; Surface Pro is a PC on which you swipe. But even if Surface doesn't jibe with notions of what a device type should be or can be, Microsoft can point those buyers to myriad other Windows options and still win. 



REVIEW SITES ARE BROKEN



DISTRO
12.07.12

FORUM

THIS IS THE
MODEM WORLD

BY JOSHUA FRUHLINGER

I'm about to walk into my favorite restaurant in the world. The food is yummy, healthy and fits my budget. The staff knows my name and rarely has to ask how I'd like something served. And the location couldn't be better. It's the perfect place. ¶ But before I can pass the threshold to nosh nirvana, a stranger on his way out gives me a sideways glance and whispers, "This place is horrible. Don't bother." ¶ This place? My place? The best restaurant on earth? How can this be? Perhaps something has changed. Did the chef leave? Is the cute hostess gone? Have I been wrong this whole time?

But I have faith. I follow through, and the best restaurant in the world is still just that, just as I remembered.

And yet that other guy had a rough go at it. Maybe he doesn't like cumin. Maybe his grandfather used to make him clean his plate full of shishito peppers, all of them the hot ones. Sounds stupid, but it turns out people are dif-

ferent and have divergent opinions; I love the place but he won't be back. Humans disagree, and that's what fuels the raging online communities, political systems, wars and sporting events. It's our difference potential and it creates social energy. Yay.

It's also why I am done with community review sites like TripAdvisor and



“... The place was still under construction, the pool was tiny and the staff were still learning how to run things.”

Yelp. They simply don't work for me. They mute disagreement. I've realized that I don't care what random people with enough time on their hands to write online reviews have to say about my favorite restaurant because I already know I love it and they're stupid heads.

Indulge me on this next sentence.

Most review sites are engines of social indifference and the net results are based on controversy and business interest rather than real reviews.

I recently returned from a honeymoon in Bali. It was a lovely time, but only because we dodged a bullet days before we left. When I was booking our accommodations six months ago, I relied heavily on TripAdvisor to point us at good choices. We decided on a new place that was listed as the “No. 3 Hotel” in the area. It had recently opened, already had about 20 positive reviews and the price was right. We booked a room and moved on.

Cut to the night before our rehearsal dinner when I was printing out our itinerary and confirmation emails. When I

double-checked the hotel's address on TripAdvisor (their Google results are often ahead of the first-party site), the hotel had dropped to No. 34 and was offering a 50 percent off special. Turned out the place was still under construction, the pool was tiny and the staff were still learning how to run things. I made a quick move, found another place and we ended up having a wonderful time.

We stopped by the original hotel in question, and, indeed, it was still under construction. And yes, the tiny pool was jammed right next to a small cafe that served as the breakfast nook. We walked back to our spacious villa, relieved.

So what happened? Seems that the early reviews were juiced, probably by owners and others with some skin in the game. Because the hotel was new, TripAdvisor's algorithm saw strong upward momentum and gave them a Top 10 spot (I'm guessing here — I don't have access to their code). Then, just as quickly, when the bad reviews came in, the math dropped the hotel back where it belonged.



This is arguably a fair way to handle community reviews — weight reviews over time and look for velocity. But the problem is that it encourages businesses to play the game and juice reviews. Meanwhile, those of us who stay at places and have a decent time probably aren't writing reviews. Instead, we're left with hyperbolic review headlines that declare the place the best thing since free shampoo. Ask yourself: how many times have you written reviews


“How many times have you written reviews about places you’ve stayed or eaten at? I’d bet it’s either ‘never’ or ‘all the time.’”

about places you’ve stayed or eaten at? I’d bet it’s either “never” or “all the time.” If I’m right, that means we’re left with polar information.

It’s probably unfair of me to criticize review results and yet admit at the same time that I don’t submit reviews. But that’s just the thing: those who are motivated to review a hotel (or restaurant for that matter) typically do so because something wonderful or terrible happened or they were paid to do so. It’s also true that had I not seen the negative reviews before I left, I would have ended up at the place, miserable and mistrusting the site even more.

But here’s where things get weird. All those negative reviews from six weeks ago for this hotel are now gone. Somehow they were deleted, probably as a way to give the new hotel a Mulligan and a chance to get its act together. That’s fair, I guess, but I hope that some fresh traveler isn’t stuck with construction and a tiny pool in paradise.

Either way, community review sites have failed me. And, to be quite honest, I’m not sure I care what someone I don’t know thinks about a hotel. Maybe someone else doesn’t care about the things I do, and I don’t care about the things that impress that person about a hotel. Maybe that person owns the place. In the end, I don’t trust the results.

For now, I’ll be asking friends rather than chancing my meals and vacations on ninja marketers and broken algorithms. It just doesn’t work. For me. 



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REVIEW

CONTENTS

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**Samsung
Galaxy
S III mini**



**Acer C7
Chromebook**



GALAXY S III MINI



Can Samsung's
Galaxy S III mini be
judged on its own
merits or will it be
overshadowed by its
more accomplished
GS III sibling?
By James Trew

Samsung made a bold move when it announced the Galaxy S III mini. Here was an Android phone with the potential to take the iPhone 5 head-on. While the original Galaxy S III is clearly the flagship, its 4.8-inch display means it's literally too much for some people to handle. By matching Apple's screen size inch for inch, it could have been pitched as a device aimed at winning over some iOS fence-sitters. However, when you look at the specifications: a dual-core 1GHz processor, WVGA (800 x 480) display and a 5-megapixel camera, it's clear that Samsung



had other ideas, opting to fish for a more mid-range customer instead.

Fast forward to the present, and it's no longer a matter of intellectual debate as to what the mini is all about: the phone is here, and on sale in much of Europe for £299 / €379. So hubris, brand appeal and pundit talk aside, is this the real-deal Galaxy S III, just for smaller hands? Or is it a budget phone simply wearing its elder sibling's tuxedo to the ball? We spent some time getting to know the phone in an attempt to find out.

HARDWARE

If you happen to own a Galaxy S III, it might be useful to get it out of your pocket or handbag and rest it on some surface beside you — now, if that's possible. For a lot of what we are about to describe will otherwise seem eerily familiar. But, rather than belabor the GS3 comparisons right from the off, we'll give the Galaxy S III mini the individual attention it's entitled to, and *then* we'll see how (and maybe *why*) it differs.

Previous Galaxy phones have typically been pretty subdued when it comes to the design flair. They've been relatively nondescript oblongs of plastic, furnished with the requisite details to let you, the user, make calls, browse the web and otherwise get on with your mobile life. The third iteration of the Galaxy S line was the first major departure from this comfortable, familiar arrangement, but one that was welcome. This same design language — the curved top and bottom, the

It's handsome enough.

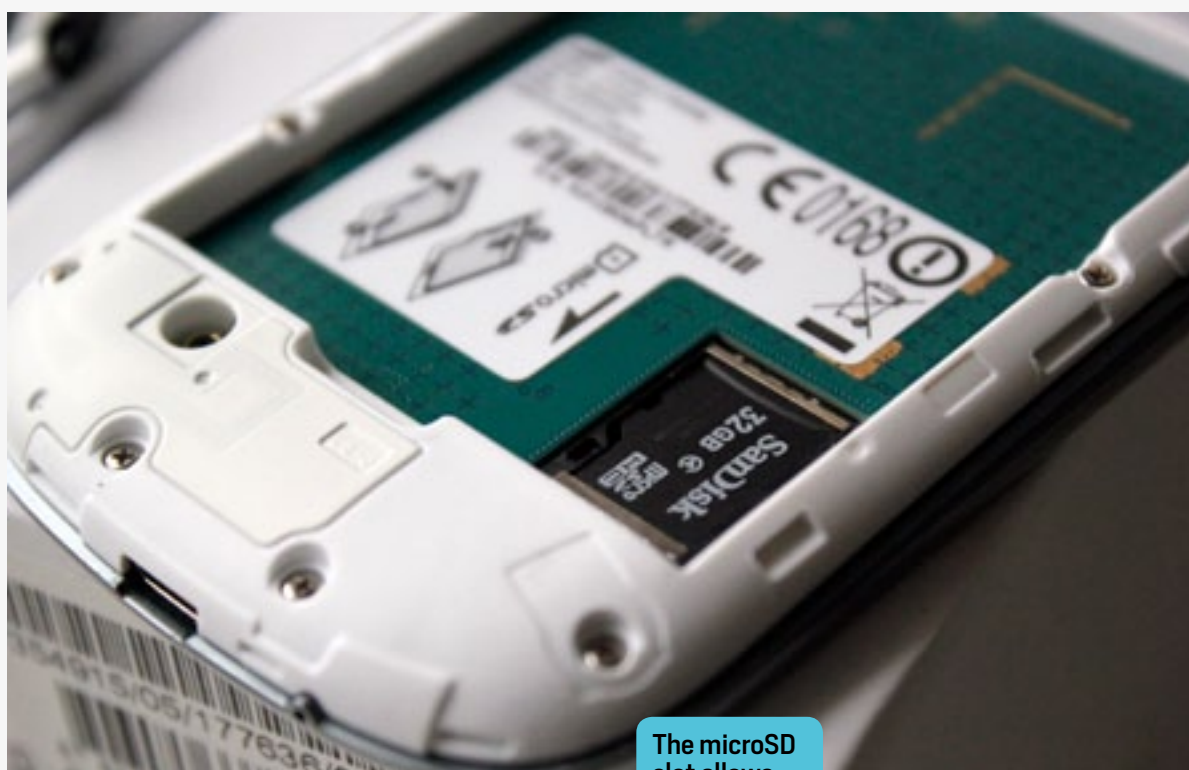
metal-look accents, et cetera — is in full effect here.

All told, the Galaxy S III mini is a handsome enough device. Our review model was the marble white version (pebble blue is also available), which looks bright and modern in person. The smooth lines along the top and bottom make the whole thing feel like one continuous shape, almost circle-like, which again makes it feel much more like part of Samsung's 2012 lineup than, say, the Galaxy Beam. Dimensions-wise, it's 2.4 inches wide by 4.7 inches tall, and just a touch over a third of an inch deep. A large device — unsurprisingly — this is not. Those measurements are what frame this phone's defining feature — a 4-inch Super AMOLED PenTile display, which we'll talk about in more detail later on.

Above this screen is the grille for the earpiece, the front-facing (VGA) camera and a couple of sensors. Below it, the familiar Samsung “home” button, as well as two capacitive buttons: one for “menu,” the other for back. Neither are visible until the screen is activated, at which point their backlighting will bring them to your attention. The rest of the device's personality comes from the metallic detail around the home button, and around the outermost part of the bezel.

The flanks have the familiar configu-





The microSD slot allows for additional memory up to 32GB.

ration of volume rocker on the left-hand side, and the dual-function power and standby control over on the right. Down at the bottom is a micro-USB port and mic hole, while at the opposite end you'll find the 3.5mm headphone jack and indentation for popping open the back. Which, kinda brings us neatly on to that very section of the phone. By and large, it's an ocean of white plastic around here, with only the 5-megapixel camera, speaker grille, LED flash and corporate branding serving to break up those otherwise calm, white battery-cover waters. Underneath which is where you'll find the full-sized SIM slot, 1,500 mAh battery, and, beneath that again, the microSD card slot for expanding the onboard (8GB or 16GB) memory by up to another 32GB.

Deeper inside, and fortunately not exposed to eager eyes and fingers, are the 1GHz dual-core NovaThor proces-

sor, 1GB of RAM and GSM / EDGE (850 / 900 / 1800 / 1900MHz) radios with support for HSPA 14.4 (900 / 1900 / 2100). Other radios include dual-band 802.11a/b/g/n (2.4 and 5GHz), GPS and GLONASS and Bluetooth 4.0. The Android version running the show is Jelly

Bean 4.1.1. This all results in a typical Samsung phone in terms of current design language and quality of build. It feels solid, without feeling too precious that it might scuff or scratch at the first buttery-fingered indiscretion.

WHAT'S DIFFERENT?

If you skipped straight to this section, well, we don't blame you. Releasing a product that bears the same name as your flagship, whatever the suffix, will certainly guarantee — for better or worse — a high level of expectation. And, while there's certainly reason *not* to compare the Galaxy SIII mini with its larger sibling, many of you are surely here for the smack-down, and we wouldn't want to disappoint.

We'll start with some superficial exterior differences before moving onto some of the more significant, internal traits that the mini-version may or may not have inherited. Firstly, starting to-





The mini (front) and its powerful elder sibling the GS III.

ward the top of both devices, the mini has a slightly more rounded appearance. Certainly, this is a side effect of its narrower shape, meaning those same curved shoulders come together more quickly, leaving less flat space between them. Below this, you'll note that the sensors and camera have moved from the right on the original Galaxy S III to the left this time around. Beneath these, the Samsung logo is actually larger than before, as is the total distance from the top of the screen to the top of the device, making the bezel taller at the extremes of the newer phone. This also gives the device a slightly more elongated feel overall when placed side by side. Curiously, it seems that Samsung

also thinks smaller hands want bigger input options, as the home button is notably larger on the mini than the one on the standard GS III. Likewise, the power button on the right-hand side is slightly taller and squarer than the one on the original, which is more symmetrical.

Around back, the only notable difference is the positioning of the LED flash, which now sits below the camera lens. Also, the speaker hole is now located to the left of the camera, rather than to right, as it did the first time around. Also, while not instantly noticeable as a physical feature, the OG GS III sports a notification light — something that seems to have gotten lost during the miniaturization process. A definite shame, we think.



Sadly, this doesn't translate to a pixel-packed HD display, because with those smaller dimensions comes a lower resolution: 800 x 480.

That takes care of the more cosmetic differences, leaving us to examine the various interior discrepancies (and yes, these are much more plentiful).

Starting from the top again, is that display. We don't want to cast its size as an inferior spec, when the whole point was to build a smaller phone. The OG's 4.8 inches will have teetered a little too close to phablet territory for some, so the idea of a more manageable 4-inch version will likely appeal to many shoppers. Sadly, though, this doesn't translate to a pixel-packed HD display, because with those smaller dimensions comes a lower resolution: 800 x 480. This definitely is an inferior specification, and puts it in the same class as HTC's Desire X, which incidentally, is comparable in many other ways too (same clock speed, camera resolution, et cetera). The PenTile matrix won't win it many fans, either. On the GS III's 4.8-inch screen, meanwhile, that 1,280 x 720 resolution translates to 305 pixels-per-inch. Dropping down to

WVGA and losing 0.8 of an inch sees that PPI slip to 233, which, while far from the worst we've seen, does make for a notable difference. You won't have to look hard to spot pixels with the naked eye, and bright text on a dark background can have a visible pixelized edge, whereas on the full-sized Galaxy S III you have to bring the screen much closer before you start to see such details.

The next — and possibly most significant — difference is what's in the engine room. While Samsung's quad-core Exynos chip caused our usually serious faces to go slack at the jaw, the company evidently felt that such power (or even the Snapdragon S4 LTE chip) was just too tasty for a handset of this size, opting for a more modest ST-Ericsson-made dual-core 1GHz NovaThor U8500 processor (the same found in the Galaxy Beam, no less). While the performance is hardly a travesty, if you were hoping the mini would be the ultimate pocket-rocket, well, it's not.

Okay, so, they eased off the gas a little with the processor. Fair enough, you say — it probably evens out somewhere else, right? If it does, then it's not in the camera department. The megapixel count has been slashed from eight to five on the main shooter, with the front camera dropping from 1.9 megapixels down to VGA resolution. One last number that shrunk was the battery capacity — 1,500mAh, down from 2,100. This, of course, was a more expected change, and — as we'll explore later — not one



you should be concerned about.

This rather more mediocre internal specification will likely be the center of much discussion regarding the Galaxy S III mini. It could do almost anything else from here on out, and we imagine that it wouldn't matter all that much for some. Aside from a teleportation feature, a hologram creator or supporting 5G, the fact is, many will read the above and dismiss the phone almost right away. They'd be entitled to do that, of course, and if you were looking for a Samsung flagship — just smaller — then we wouldn't blame you, either. If, however, you're of a more forgiving nature, join us and read on to get to know it a little bit better, and perhaps you might not have such a damning view of this little fella after all.

DISPLAY

As we revert back into review — rather than comparison — mode, we'll be going over some

The screen is bright, but does have a rather low pixel density.



of the same numbers. This is particularly true with the display. We'll reiterate again: it measures four inches across diagonally, with a WVGA (800 x 480) resolution and a density of 233 ppi. Samsung's sticking to its Super AMOLED PenTile guns whether you like it or not, but if you're the kind of person who finds that a turn-off, you likely already lost interest somewhere in the last section. In reality, the display is adequate, and still delivers a pleasant enough experience. What it lacks in pixel density, it makes up for in brightness and color representation. It might not be quite as brilliant as some of the laminated screens we've seen recently (HTC's Desire X, or Acer's CloudMobile for example), but images display faithfully, with no glaring contrast issues, and if you're into watching lots of video, again, we found it perfectly acceptable for the casual viewing that we performed during our time with it.

CAMERA

While it's no longer 2010, the iPhone 4 showed what you can do with five megapixels pretty well. Its time in the sun may have since passed, but it might start to give you a better sense of where the Galaxy S III mini sits in terms of intended market (hint: not at the





Even in a drab British fall, the mini took some decent shots.

top). So, five megapixels it is (plus aperture of $f/2.6$, focal length of 3.54mm), but it's what it does with them that really counts, and we're happy to say that it actu-

With a steady hand and use of the built-in low-light modes you can still eke out some decent nocturnal pictures.

ally does a pretty good job. Colors look solid and clear, even if the great British autumn made finding bright examples worth shooting a little more difficult. Low-light performance varies, with dimly lit rooms being the camera's particular nemesis, producing much more washed-out colors. But even then, with a steady hand and use of the built-in low-light modes you can still eke out some decent nocturnal pictures.

As we're not on stock Android, the camera has a few extra options that you don't get with Google's unskinned OS. If you've used any other recent Touch-



Wiz phones from Samsung, you'll know you get a decent spread of additional camera modes, including Panorama, Burst and HDR. There are, of course, the other regular tricks, such as tap-to-focus, face detection and geotagging. All of these work just as well as they did on the original Galaxy S III, which is to say they're useful tools that succeed in enhancing the experience.

What about budding video makers? Well, we're not suggesting this will win you any Oscars, but when we grabbed some footage in the great outdoors, we found it perfectly capable of preserving memories of a quality that's enjoyable to watch back on the phone itself as well as on the desktop. You're recording in 720p at 30 fps (at 12 Mbps, 128 Kbps audio), so you're at least gaining membership to the HD club, even if it's at the entry level.

SOFTWARE

Back in May, when Samsung unleashed the "designed for humans" Galaxy S III, it did so with a TouchWiz revamp. We weren't too smitten with it when we gave the flagship its full review, but we've had half a year now to come to terms with it, and those frustrations — while still present — have at least faded somewhat with time. The important thing here is that the UI is one of the few areas where the experience between the two phones is comparable. All those new treats like S Voice and Motion gestures are on display and at

your disposal. This also includes other neat tricks such as pop-up video multi-tasking. Sure, with the smaller screen, it might not be quite as useful, but it's still a fun addition, and one that we're glad made its way over regardless.

Other familiar friends include the lock screen apps, which we found ourselves quick to customize, ensuring these soon became a fast favorite of ours. Also the quick access widgets and shortcuts under the notification pull-down are still a great way to get to useful settings real fast. At the more basic level (i.e., under the hood), remember that we're on Android 4.1 Jelly Bean out of the box, and that means things like Google Now are just a long-press of the menu button away, which goes a long way toward making the experience feel current.

We were, however, sad to see the lack of S Beam / NFC. When the phone was first announced, there was loud chatter about this feature being included, with the caveat that it might be region-specific. Alas, that is indeed the case. Our UK retail model does not support NFC. Nor do any of the other European territories (Sweden, Norway, Germany, Belgium, etc.) where it is currently available. We've asked Samsung for clarification on which territories *will* get the advertised NFC, but for now it's worth checking your local Samsung site just in case.

Overall, the takeaway here is that while you might be getting a slightly rougher deal in terms of specs, what Samsung lets you *do* with the phone



hasn't really changed. (NFC notwithstanding, of course.) Not bad, really, especially if you look at this from the increasingly obvious angle of it being more of a budget device, one that's *inspired* by the Galaxy S III, more than anything. Okay, we know some of you still wanted an exact scale replica of the GS III, but your cause was, regrettably, lost some paragraphs ago.

PERFORMANCE AND BATTERY LIFE

If you skipped straight to the "What's Different" section above, perhaps you came here next? After all, this is really where it's at if you're in the "I want a small Galaxy S III" club. Specs are one thing, but does it perform well? The answer, is yes. And also, no. When you use

Specs are one thing, but does it perform well? The answer, is yes. And also, no.

the original Galaxy S III alongside this one, you can spot the difference straight away. The Exynos processor in our comparison model won't bat an eyelid at anything you throw at it. The dual-core 1GHz NovaThor, however, lets you know it's there from time to time with its slightly slower response. While not terrible, exactly, we'd frequently press the home button and there'd be a noticeable pause before we were returned to the home screen. Occasion-

We managed about two days of casual use on a charge.



BENCHMARK	SAMSUNG GALAXY SIII MINI (I8190)	HTC DESIRE X	SAMSUNG GALAXY S III (I9300)
QUADRANT (V2.0)	3,048	2,682	5,875
VELLAMO (V2.0)	1,389	1,147	1,626
ANTUTU	4,539	4,938	10,344
SUNSPIDER 0.9.1 (MS)	2,021	3,448	1,194
GLBENCHMARK 2.5 1080P EGYPT OFFSCREEN (FPS)	6	WOULDN'T RUN	15
CF-BENCH	4,572	5,460	12,922

SUNSPIDER: LOWER SCORES ARE BETTER. GALAXY S III AND GALAXY S III MINI RESULTS BOTH FROM JELLY BEAN

ally, too, when you press the standby button to wake the phone up, it'd present the home screen for a second, before the lock screen would suddenly appear on top of it, like it was only just kicking into action after the fact.

In general use it's actually fairly smooth, though still more sluggish than its big brother. Comparisons aside, and fully on its own merit, the Galaxy S III mini performs well enough that using it as our daily driver for a week presented no problems at all. This included the usual round of casual gaming, plenty of laps on the slightly more graphically intensive *Asphalt 7*, video viewing, photo snapping and app usage (we sure do love to check our email). If you are coming over from a lower-specification phone to this, then it's a pleasure to use, and will serve you well as a daily driver. If you just want to compare it to the clearly higher-specced sibling, then sure, it's never going to fare as well. On

the other hand, compare it with other mid-range phones — for this is what it really is — and it starts to stand out from the crowd a little bit more. Again, the HTC Desire X is a good example. Similar specification, and Samsung's mini feels much more responsive side by side. Likewise, Sony's Xperia U, which also runs on the same NovaThor chip, also feels like a more direct competitor when you get down to the reality of it. Against these phones, the Galaxy S III mini starts to make a bit more sense again in terms of where it fits in the market.

There is one area where the Galaxy S III mini does stand shoulder to shoulder with big bro, and that's battery life. When we reviewed the flagship back in May, we were surprised to find it lasted between 8.5 and 9.5 hours. We performed the same rundown test (video looping, brightness fixed at 50 percent, WiFi on but not connected), and we got almost



exactly the same results, a smidgen over nine hours (9:14, to be precise). This is rather good, we have to admit, especially as the cell is some 600mAh lighter than the OG's 2,100mAh battery. Perhaps Samsung was so precise in its calculations when scaling down the screen that it was able to keep this excellent running time. Or maybe it's just good old-fashioned coincidence. Either way, we like it. We like it a lot.

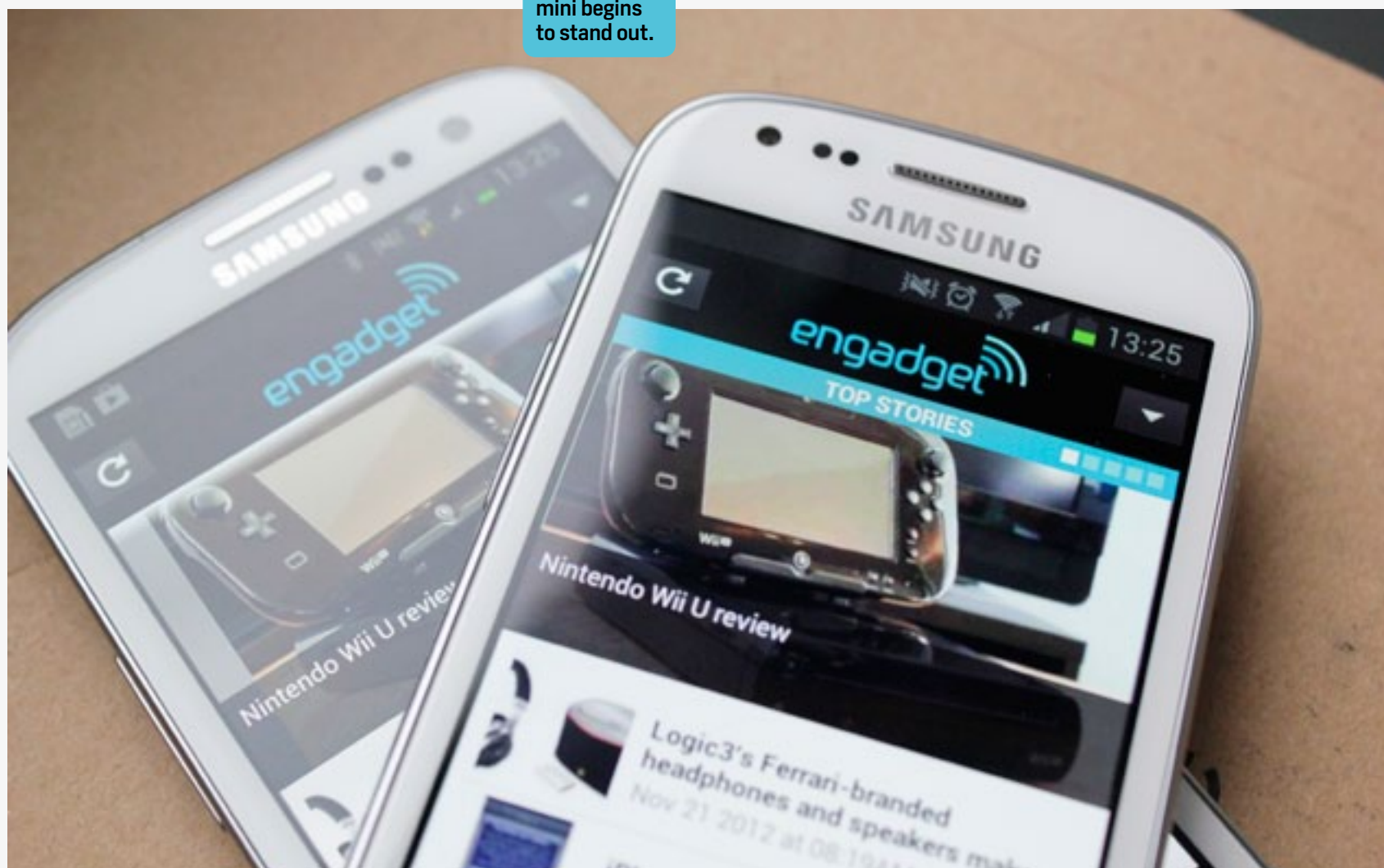
In general, the battery performs well, and that's even when we're *not* intentionally trying to drain the life out of the cell. We got through two days of steady use (occasional calls, messages, gaming, photos, etc.) without a problem, and still managed over a day when we found ourselves taxing it a

bit more (e.g., flicking between data connections, working in poor signal areas). If you've hung in there with this phone so far, then you'll be pleased to know that it handles those old-school telephone calls pretty well too, with clear audio that remained constant regardless of where we happened to find ourselves (*extremely* poor signal areas notwithstanding). Likewise, the data / HSPA connection around London was handled at the same rates as whatever its brother could muster, which for number fans ranged from 2.8 Mbps to 4.3 Mbps in and around London on O2.

WRAP-UP

Oh, Samsung, what did you do? We think we know what you *thought* you were doing. A cheaper phone for those who want

When compared to its peers, the mini begins to stand out.



a little bit of the Galaxy S III experience, for less money, in a more manageable form. And that's what the Galaxy S III mini actually is. We get that, and what's not to like about that idea? Sure, some people will have taken things a little more literally and expected a flagship device — in a smaller package — but that's just not what this is. What you *do* have, however, is a decent mid-range phone with top-end looks. So, for those in search of such a thing, the Galaxy S III mini will be just the ticket, and we're in no doubt that's potentially a lot of people. There was a chance, however, that if done differently, this could have taken the Galaxy S III "brand," in a whole new direction. If this *had* come with specs similar to its bigger brother, it could have truly been something to behold.

Some, will understandably be disappointed that this isn't so. Sad, instead, that what Samsung did was try and stretch the phone's identity to mop

up some of the more budget-conscious market along with those eager for a little bit of the top dog. For these people, that decision will have proved a stretch too far, with the phone's "credibility elastic" snapping under the tension. What we're left with, then, is a perfectly good mid-range phone that might never truly get the consideration it deserves — after all, compared to much of the actual competition (the similarly specced and priced Desire X, Sony Xperia U, etc.) it definitely holds its own. In the end, Samsung has taken a gamble with arguably the largest of all its brands, the Galaxy S, and it's not entirely clear whether it will pay off. **D**

Thanks to Expansys.com, which supplied the review handset.

James loves music and technology, especially music technology, particularly when he gets to write about it. Figures really.

BOTTOMLINE

**SAMSUNG
GALAXY S III
MINI (I8190)
£299 / €370****PROS**

- Excellent battery life
- Same software experience as GS3 (i9300)
- Attractive, modern design

CONS

- Disappointing specs for a "GS III" handset
- Price too high for the feature set

BOTTOMLINE

If you were hoping for a mini Galaxy S III, this isn't it. If, instead you fancy a decent mid-spec phone with a modern design, this is a great choice.



DISTRO
12.07.12

REVIEW

ACER C7 CHROMEBOOK



Acer's new
C7 Chromebook
may be aimed at
the lowest-budget
buyers, but is it
worth the savings?
By Myriam Joire

It's been just over a month since Google unveiled its gorgeous and affordable \$249 Samsung Chromebook only to surprise us days later with an even cheaper system, the \$199 Acer C7 Chromebook. At first glance, these two laptops are very similar, both in purpose (cloud-based computing on a budget) and in specs (11.6-inch display, dual-core CPU, 2GB of RAM), but there are significant differences under the hood. Samsung's offering achieves its svelte form factor, 6.5-hour battery life and attractive price via a



fully integrated and fanless ARM-based design while Acer takes a more conservative approach — cramming standard off-the-shelf components like a 2.5-inch hard drive, small-outline memory module, mini-PCIe WiFi card and Intel Celeron processor into a traditional netbook-like chassis. Does being \$50 cheaper make up for the C7's lack of sex appeal and short 4-hour battery life? What other compromises in performance and build quality (if any) were made to achieve this lower cost? Most importantly, which budget Chromebook is right for you?

LOOK AND FEEL

Whereas Samsung's \$249 Chromebook is purpose-built and inherits most of the finer design attributes of its larger, faster and more expensive cousin, the Series 5 550, Acer's \$199 Chromebook looks and feels like a cheap netbook. In fact, other than the Chrome logo and OS-specific key labels, you'd be hard-pressed to tell the C7 apart from its twin, the company's 11.6-inch Aspire V5. Build quality and materials are on par with other low-end Acer systems we've come across — cheap molded plastics abound, mak-

The budget was in mind with this utilitarian design.



ing this laptop sturdy but not particularly elegant. If Samsung's Chromebook evokes the 11-inch MacBook Air, the C7 is completely generic and purely utilitarian. Beyond the obvious aesthetic differences, Acer's Chromebook is also thicker (one inch vs. 0.7 inch) and heavier (three pounds vs. 2.4).

The screen lid and keyboard deck are painted "iron gray" while the bottom shell is made of textured black plastic and the display bezel is finished in shiny black. Strangely, each of these disparate surfaces manages to attract fingerprints to various degrees. Acer's brand is stenciled below the glossy 11.6-inch screen and in the middle of the lid. The Chrome logo is embossed in the top-left corner of the lid — it's actually a sticker which started peeling off within minutes of us unboxing the C7. You'll find a webcam and microphone above the display and the power button with an embedded blue LED above the keyboard to the left.

Speaking of which, the keyboard uses black island keys but differs in layout from other Chromebooks, which is problematic (more on this later). The left side is home to a 10/100 Ethernet jack, VGA and HDMI outputs, plus a USB 2.0 port, while the right side features a Kensington lock, the power connector, two more USB 2.0 sockets and a standard 3.5mm headphone jack. In front, there's an SD card slot on the left and a pair of blue / orange status LEDs (sleep and charge) on the right. The

Cheap molded plastics abound, making this laptop sturdy but not particularly elegant.

removable four-cell Li-ion battery slips into the back of the system and is secured via a sliding lock mechanism accessible from the bottom.

Flipping Acer's Chromebook over reveals a few vents and grilles for the cooling fan and the speakers. What's more interesting is that the bottom shell is largely covered by a plastic door that's fastened with a single Phillips screw located under the warranty seal. Opening this door provides access to a 7mm-thin 2.5-inch SATA hard drive (320GB / 5400rpm) made by Seagate, two DDR3-1066 / 1333 SoDIMM slots (one of them populated with 2GB of RAM) and an Atheros half-height mini-PCIe 802.11a/b/g/n WiFi card (but no Bluetooth). This, combined with the Ethernet jack, VGA output and additional USB 2.0 port makes the C7 a lot more tinker-friendly than Samsung's Chromebook. In fact, resourceful hackers are already dual-booting Chrome OS and Ubuntu 12.04 on this laptop — we're sure Windows 8 is not too far behind.

KEYBOARD AND TRACKPAD

We've been spoiled by the quality of the keyboard and trackpad on Samsung's





The keyboard lacks comfort and has a confusing key layout.

\$249 Chromebook, which seem to be lifted right from the pricier Series 5 550. The C7 falls short in comparison — the keyboard and trackpad are decent, but we can't see ourselves typing this entire review on Acer's \$199 Chromebook.

First, the keyboard deviates from the standard Chromebook layout by losing the power button (it's separate) and including caps-lock (instead of the search key). Second, it's cluttered with vestigial keys (such as Home, End, Ins, Del) which are too small to be useful and in some cases (like Pg Up / Dn) interfere with the cursor keys, something that quickly makes editing documents extremely

frustrating. Third, the Ctrl and Alt keys are too small and are separated by other keys on the left side, while the Alt key is missing on the right (replaced with Alt Gr). Once you're past these niggles, it's a serviceable, if somewhat mushy chiclet keyboard.

Acer's trackpad almost matches Samsung's. Single-finger tracking and two-finger scrolling work as expected but pressing to click requires more force, which becomes tiring after using the C7 for a while. Of course, tapping to click is available in the settings, but we prefer the tactile feedback of a properly calibrated switch.



DISPLAY AND SOUND

There's one major difference between the 11.6-inch, 1,366 x 768-pixel LED-backlit screens on these two budget Chromebooks — Acer's is glossy and Samsung's is matte. In fact, this is the second Chromebook ever with a shiny display (the first being Acer's AC700). Colors are slightly cooler on the C7, but brightness, contrast and viewing angles are similar on both screens — neither is as bright as the Series 5

550, and you'll probably want to adjust the lid for the best viewing angle once you're in a comfortable position. While Samsung's matte display is easier on the eyes (especially when working outdoors), Acer's screen opens almost flat, which is a nice touch.

Neither Chromebook is going to break any records in terms of audio quality when using the built-in speakers. These sound tinny and are easy to obstruct, being located

The C7's glossy screen is tiltable to almost 180 degrees.



in the bottom shell near the front edge of the keyboard deck on both systems. Samsung beats Acer on loudness here, but the C7's volume is still adequate in a quiet room.

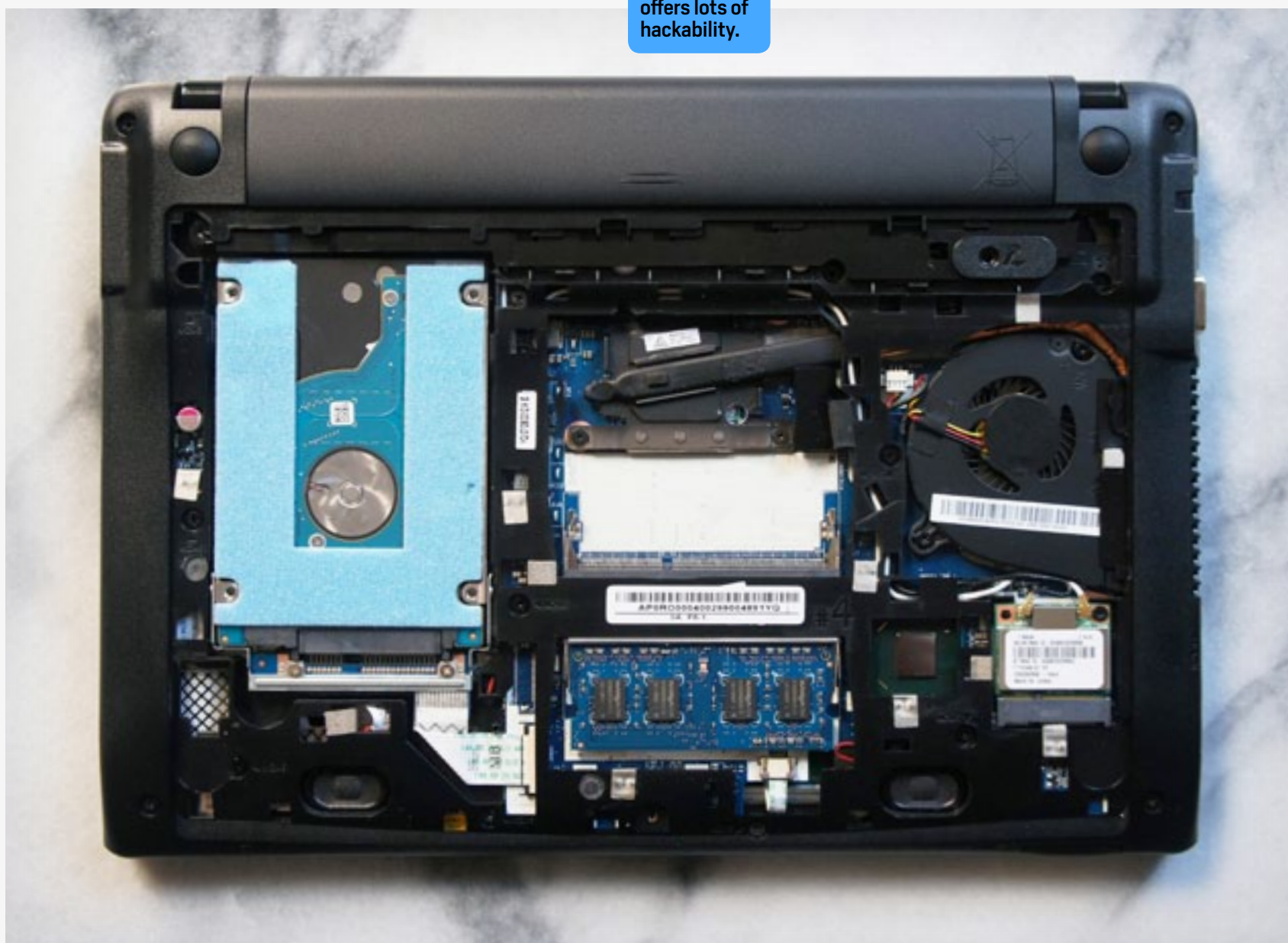
PERFORMANCE AND BATTERY LIFE

Acer's \$199 Chromebook features Intel's 1.1GHz Celeron 847 processor and a 320GB hard drive. Samsung's \$249 Chromebook is built around the company's A15-based 1.7GHz Exynos 5 Dual (5250) SoC with 16GB of flash storage. Both laptops sport a dual-core CPU and 2GB of RAM, so it's really a bat-

Acer's Chromebook, which is rated for four hours of operation, lasts only three hours and 16 minutes in the same test.

tle of x86 vs. ARM and HDDs vs. SSDs. On Chromebooks, the processor speed usually affects things like page rendering and scrolling, the amount of RAM impacts how many tabs you're able to open at the same time,

The easily accessible interior offers lots of hackability.



and storage performance generally affects boot times and page caching.

In our experience, Samsung's Exynos-packing system slots somewhere between the Atom-equipped Chromebooks and the Celeron-based models like the Series 5 550. Of course, those are all equipped with solid-state drives. The C7, then, is an anomaly — it's marginally faster than its budget stablemate, both subjectively and as reflected by SunSpider web rendering results (528ms vs. 677ms), yet it takes twice as long to boot (18 seconds vs. nine). We don't remember noticing any hiccups or crashes — as such, it's a perfectly competent Chromebook that provides middle-of-the-road performance.

Battery life is another matter. Samsung's Chromebook comes out ahead by matching its specs and scoring six hours and 33 minutes in our usual battery rundown test (which involves playing a video in a loop from local storage with WiFi turned on). Acer's Chromebook, which is rated for four hours of operation, lasts only three hours and 16 minutes in the same test. While the C7 features a smaller 2,500mAh battery (vs. 4,080mAh), it's also saddled with less-efficient components, like that 2.5-

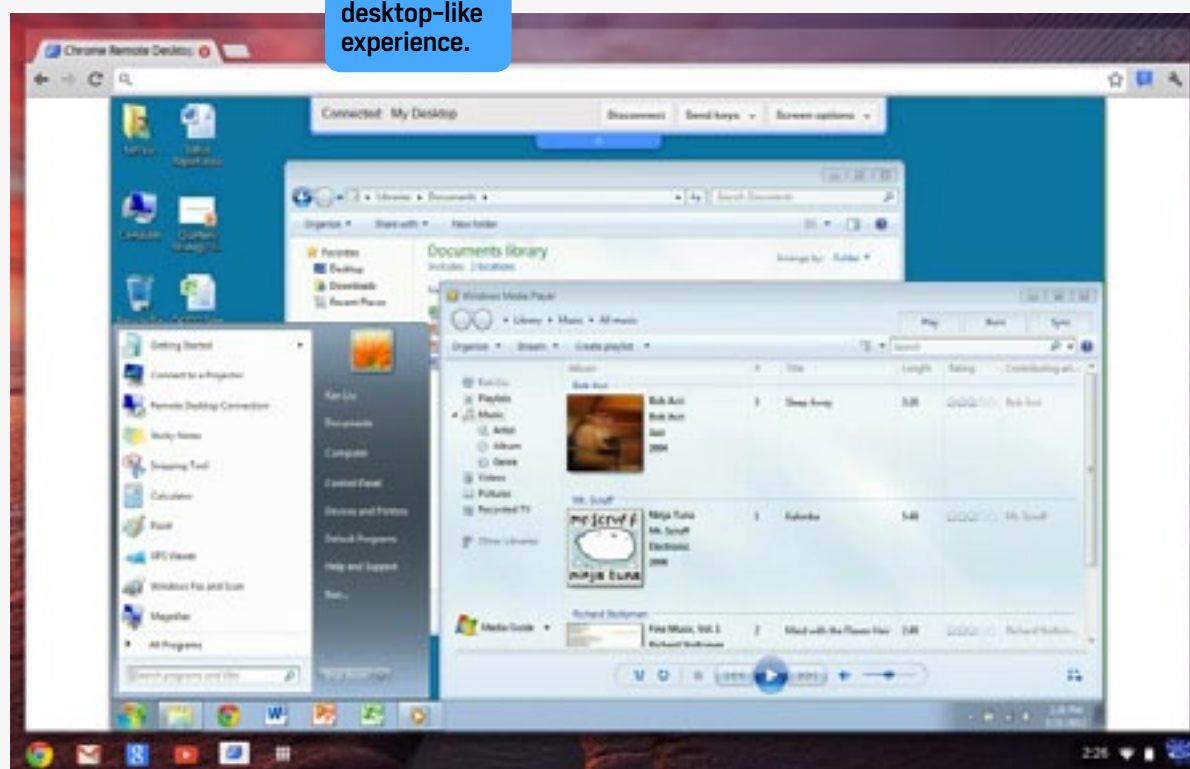
There's a certain beautiful simplicity to cloud-based computing.

inch hard drive, the Intel Celeron CPU and its associated cooling fan. Speaking of which, the fan is always spinning, and while the speed varies, it's often loud enough to be noticed. While it's somewhat annoying, it keeps the laptop cool even when the vents are partially covered by fabric.

SOFTWARE

For many, Chrome OS is an acquired taste — you really have to live with it for a few days to appreciate it. While it's not for everyone, it's a compelling option once you wrap your head around the idea. There's a certain beautiful simplicity to cloud-based com-

The UI has developed into more of a desktop-like experience.





The Acer C7 (right) and its competitor, the Samsung Chromebook.

puting that becomes clear once you start using a system designed to do only one thing really well — the one thing people do the most — surf the web. No more worries about managing apps or updating software or lending your laptop — you're able to focus and be productive. We have several fans in our midst here at Engadget, and this pair of budget Chromebooks is generating more interest than ever among colleagues, friends and family.

Acer's \$199 Chromebook runs version 23 of Chrome OS. We reviewed build 19 earlier this year, which marked a significant change for the OS — the UI evolved from being pretty much a full-

screen instance of Chrome to offering a more desktop-like experience, complete with wallpapers, a task bar and a launch menu. It also introduced additional functionality with a photo editor, broader media compatibility, offline documents including Google Books, support for Hangouts, plus tab synchronization with other versions of Chrome (mobile and desktop). That build of the OS also comes with Chrome Remote Desktop to access remote systems and share your own screen. Version 23, which also ships on Samsung's \$249 Chromebook, features a revised log-in screen, additional wallpapers, a calculator app, a camera app (with



funky filters) and deep Google Drive integration — complete with 100GB of free storage for two years.

WRAP-UP

Whether you're interested in cloud-based computing on a budget or you're just curious about Chrome OS, there's never been a more affordable selection of Chromebooks. Acer's \$199 system certainly wins on price, but it looks and feels extremely cheap. It offers a fast processor along with Ethernet and VGA connectivity, but at the expense of a glossy screen, poor keyboard layout and lackluster battery life. Did we mention the sea of cheap plastics?

Still, it's hard to ignore the C7's tinker-friendly ways. Adding another 2GB of RAM (by installing a second SoDIMM) and replacing the hard drive with a small SSD is a trivial way to achieve Series 5 550 levels of per-

formance for less money than buying Google's flagship laptop — not to mention, this Chromebook's already been hacked to run other operating systems. Plus, the removable four-cell Li-ion battery opens the door to larger-capacity replacement packs.

Ultimately, we think it's worth spending a little extra for Samsung's \$249 model. It's more elegant, better built, thinner and lighter. This, together with the matte display, top-notch keyboard, Bluetooth and decent battery life makes for a more polished Chromebook experience. After all, if you're gonna live in the cloud, might as well be on cloud nine, right? **D**

Myriam was born wearing combat boots and holding a keyboard; moments later she picked up a soldering iron. She's been stomping, typing and hacking ever since.

BOTTOMLINE

ACER C7 CHROMEBOOK \$199



PROS

- Most affordable Chromebook yet
- Decent performance
- Hacker friendly

CONS

- Cheap materials and build quality
- Poor keyboard layout
- Lackluster battery life

BOTTOMLINE

Acer's \$199 system certainly wins on price, but it looks and feels extremely cheap. It offers a fast processor at the expense of a poor keyboard layout and lackluster battery life.



SETTING ASIDE THE SMARTPHONE

Two Weeks with Samsung's Galaxy Camera

The **GALAXY CAMERA** includes an Android interface, but can this gadget truly do the double duty of both camera and smartphone? **By Zach Honig**



EXPLORING THE WORLD with the hottest cameras and smartphones, I've grown accustomed to drawing discreet glances from curious gadget enthusiasts. In Tokyo, it was Canon's EOS M camera that netted polite peeks. In Hong Kong, it was the Galaxy Note II. From the moment I exposed the striking Galaxy Camera in Bangkok, however, those subtle scans turned into full-on stares, with

several courageous passersby even inquiring about the latest Android-based Samsung device dangling from a strap around my wrist.

"Is that a phone or a camera?" Well, it's certainly not the best camera, nor is it a passable "phone," but for this early adopter, at least, it was poised to replace both. When Samsung first revealed its Jelly Bean-powered superzoom hybrid at IFA, the challenge became clear — there wasn't room in my life for two Galaxy gadgets, but a 21x zoom-equipped all-in-one sounded mighty promising. After I finally unpacked it, the 4.8-inch, touchscreen-equipped, 16.1-megapixel shooter didn't leave my side once during the next two weeks.

It streamed music in the gym, downloaded email on the go and provided walking directions and historical context as I explored Thailand. But the Galaxy Camera's impressive zoom also brought me far closer to the action than even the most

powerful camera phone, and a micro-SIM from iPhoneTrip enabled instant uploads to Dropbox and Instagram far from the nearest open hotspot. As you may have gathered from our review, the Galaxy Camera wasn't designed to replace anyone's smartphone, and with the jumbo footprint and mediocre battery upping the inconvenience factor, could such a device feasibly become your one and only?






A CAMERA IN A SMARTPHONE'S WORLD

Countless point-and-shoots pack touchscreen displays and impressive optical zoom specs. Only one runs Jelly Bean. You might argue that Android gives Samsung a major leg up over competitors, and you'd be right. But that's just part of the story here. The Galaxy Camera delivers full Android functionality at tremendous expense — beyond the \$500 price tag.

Perhaps most significant is the device's size. It's far thicker than most compact cameras on the market today, making it difficult to carry around at all times. In fact, you could tape a Galaxy S III to the back of a point-and-shoot and still end up with a thinner profile. I was able to force my snow white camera into my jeans pocket when necessary, but both removing it and popping it back in was always a struggle, and since I don't wear a watch, I often turned to my smartphone-equipped girlfriend for an update on the current time.

Battery life is another major setback. Fortunately, it uses the same pack as the Galaxy S II, so you could reasonably expect to find a replacement in any corner of the globe. I came upon one easily for about 20 bucks at an electronics market in Bangkok, and although the salesperson was convinced that it wouldn't work, the Galaxy Camera booted up just fine when paired with the same 1,650mAh battery that ships with the company's former flagship smartphone. With two fully charged batteries, I had no problem making it through a full day of heavy shooting, navigating, email and web browsing. It's hard to believe that Samsung couldn't have packed in a larger cell, however, which would have made longevity a non-issue.

Running Android also makes the Galaxy less stable than your run-of-the-mill pocket cam. Instagram seemed to crash on a daily basis, but even the device's own dedicated camera app locked up frequently, requiring a reboot. Casual users may consider this to be little more than a moderate nuisance, but I found the frequent freezes to be incredibly frustrating after they caused me to miss several interesting shots.



WITH SKYPE, IT CAN MAKE CALLS, TOO

I was convinced that I'd be able to make it through this two-week trial without making a single phone call, relying on SMS and email instead. Well, I was dead wrong. A flight check-in issue required several calls to the airline, a late-night fast food craving was only satisfied after ringing a nearby McDonald's and upon landing at JFK in New York, my ride would have never arrived without a call to confirm that I was ready and waiting in pickup area A.



Fortunately, like any camera, the Galaxy has a mic (primarily tasked with capturing audio during video shoots) and a speaker (for reviewing clips) — two critical components for making voice calls. Missing, however, is the An-

I wasn't able to use 2G networks, which meant no connectivity whatsoever whenever I ventured more than a few miles from a major city.

droid phone app, making it impossible to place calls without adding on an application like Skype. Fortunately, the VoIP program generally works well over 3G, assuming of course that you don't mind using the Camera as a speakerphone, or adding your own headset.

Unlike standard voice options, Skype can be very expensive, especially for calls to international numbers and while roaming abroad. You'll need a solid internet connection to take advantage, though, and lag or data inconsistencies during many of my calls left the person on the other end terribly confused. Receiving incoming calls is also a challenge, though a bit of SMS coordination over Google Voice made it easy enough to schedule chats, or to communicate via text.

In some areas, your smartphone may be able to snag a connection while the Galaxy Camera cannot. When it comes



« Swipe for sample shots from the Galaxy Camera. »

to transmitting high-resolution images or HD video clips, the exclusion of EDGE compatibility may not seem to be much of a setback, but it does present a disadvantage when you're only looking to update your location on a map or load a few messages. I wasn't able to use 2G networks, which meant no connectivity whatsoever whenever I ventured more than a few miles from a major city. Most of the time, 3G was available, but being able to hop on the EDGE network would be better than having absolutely no access at all.


WILL YOUR NEXT CAMERA RUN ANDROID?

The Galaxy Camera is still very young, and while dedicated apps are likely in the works, we haven't seen anything compelling come to light just yet. If you don't mind hand-



ing over cash for a data plan (AT&T's \$10 monthly data add-on is a reasonable option), built-in 3G connectivity is a unique and valuable proposition, while WiFi paired with hundreds of thousands of powerful Android apps makes the device worthy of your consideration, too. Duplicated functionality remains the biggest challenge for Samsung, however, considering that the target audience for a \$500 pocketable camera is likely to overlap with the current Android user base.

It's easy enough to keep your data synced between the camera and a smartphone once you add in a Google account, so while many of the device's features are already available to Android phone owners, adding the camera generally won't complicate your digital life. It could also serve as an excellent companion for an iPhone or Windows Phone, providing access to Android-only apps without the need to add a second smartphone or a tablet. Still, if you're serious about your photography and care little about sharing your pictures instantly on the web, that \$500 would be much better spent on a dedicated shooter with more respectable specifications and a slimmer design, to boot.

Ultimately, my two-week Galaxy Camera experiment was a success, but boy was I eager to power up my Galaxy S III after that 14-day period came to an end. Though the device was able to replace all but the calling features of my smartphone, its footprint (and significant weight) made it inconvenient and uncomfortable to keep by my side day and night. Having a 21x superzoom around at all times was advantageous, however, and I was able to snag plenty of shots that would have been impossible with the fixed lens in any handset. As the adage goes, "the best camera is the one you have with you," and if it's your only device running Android, you'll never want to leave it behind. 

Zach is a Senior Associate Editor and heads up Engadget's features content. He's also a lifetime lover of everything aviation and photography.



CAN DAVID MARCUS FIX PAYPAL'S REPUTATION?

Marcus sits in his nondescript San Jose office, though the "Get Sh*t Done" sign on his door speaks volumes about all of the work that goes on in here.

As PayPal gears up for what could be its riskiest year yet, the company's new president champions a return to customer service. **By Darren Murph**

ONE DOESN'T HAVE TO LOOK FAR to find my true feelings on just about any company. PayPal, in particular, has been on the wrong end of many examples of customer service gone horribly wrong. After lambasting the payments outfit once more following a gaffe I discovered

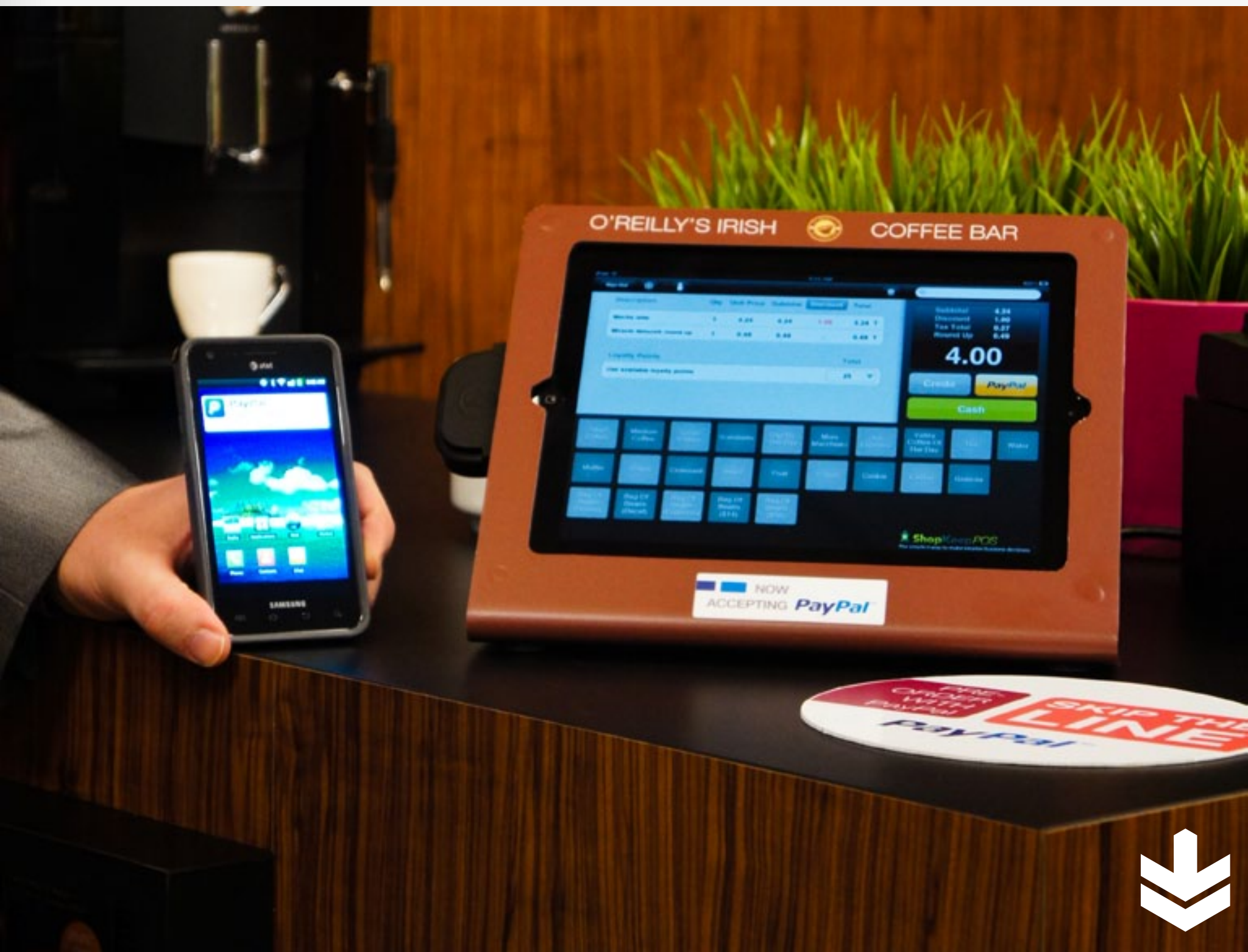
PHOTOGRAPHS BY DARREN MURPH



while interviewing Infinitec co-founder Ahmad Zahran, I did something I rarely do: I reached out to the company's president on Twitter. A few hours later, the 39-year old David Marcus responded. At the time, I was floored to get anything more than a passing sigh, but after visiting his new home — a nondescript office at PayPal's headquarters in San Jose, Calif. — I learned that my experience wasn't a unique one.

Marcus, a tall, handsome chap who was absorbed into eBay after a \$240 million acquisition of mobile-payments provider Zong, was bestowed with the herculean task of running PayPal not long after Scott Thompson departed for Yahoo. Upon walking up to his office, it becomes immediately clear that he's aware of it — his room is labeled "GSD," which the clever among us would recognize as "Get Sh*t Done." Outside of a few tall windows, there's little more here than

PayPal Anywhere promises to rival Square and the conventional credit card by going front-and-center in retail establishments.



a desk, a striking Nixie clock and a personal coffee machine — seemingly, the bare essentials needed to achieve the three-lettered goal he sees each time he enters. Under Thompson's guidance, PayPal had grown at a rate seen by only a handful of other companies in the world, notching double-digit profit increases like clockwork. As it turns out, Thompson had little choice but to focus almost entirely on risk management and investor relations during his tenure — with millions in transactions pouring in by the hour, and new nations and currencies being added by the month — it simply *had* to be all about the numbers.

Now, PayPal finds itself thrust into a new era. It's an era led by a startup junkie, tasked with getting a 13,000-plus-member team to buy into an entirely new culture. It's a culture that realizes how sensitive consumers are to financial taboos, how vital it is to iterate before rivals can even plan and how irreparably damaged PayPal's brand could become if customer service isn't a top priority as it soldiers into the world of offline payments.

TO PROTECT ...

As I sit down with Marcus, our discussion begins with his journey into the world of PayPal. "I didn't realize it was this big," he confesses, speaking candidly about the sheer size of the 14-year-old company he's now shepherding. He's coming from a startup, fully aware that it's going to take more than a miracle to redirect the things that he sees as misguided. Though young by presidential standards, he fits the mold — he's spent the better part of his career obsessing over the finer details in payment processing, and how to make the

PayPal's spacious lobby sees all sorts of high-ranking executives waltz through. Plenty of million dollar transactions start right here with a handshake.



procedure “as frictionless as possible.”

And indeed, there was — and in many ways, still is — a lot of friction at PayPal. Friction, as Marcus points out, that is incredibly challenging to address. While PayPal isn’t “a bank” in the traditional sense, he makes clear that his company deals with regulators in every US state and nearly 200 countries worldwide. No matter how you slice it, there’s an overwhelming amount of red tape involved in handling millions of dollars in transactions per minute, and doing so “at scale” is something that fascinated Marcus from the outset. Personally, the only word I can find to describe it is “daunting.”

That said, it’s a bed that PayPal chose to lie in. No one forced the growth upon it, and it’s certainly not enacting those per-transaction fees as a matter of social charity. Marcus knows why I made the journey, and he listens intently as I describe a recent situation where his service made me, frankly, feel like a criminal. A few weeks back, I randomly received an email from PayPal informing me, in the most robotic and sterile way possible, that I would need to jump through a series of hoops in order to reconfirm my address and identity. I hadn’t had a PayPal transaction in months, and I last moved a year ago. There was precisely nothing suspicious about my recent PayPal activity — unless you consider doing nothing for a few months suspicious.

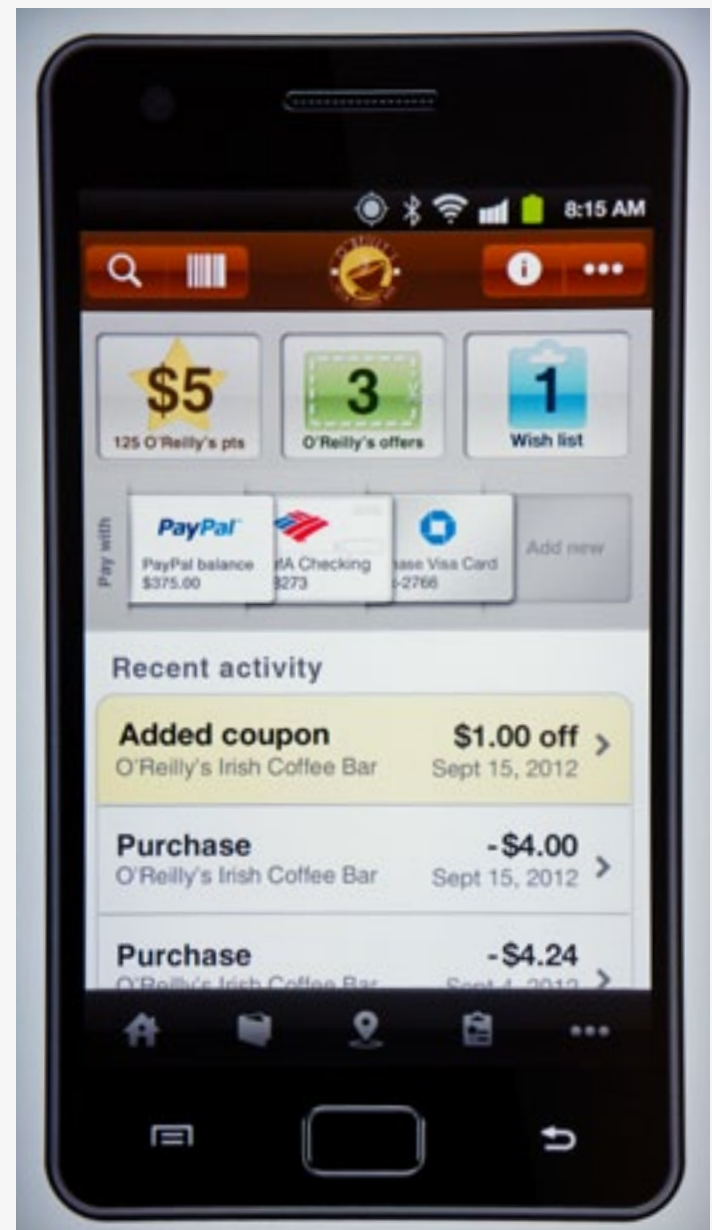
Marcus’ head dips a bit, and his lips clinch ever so slightly.

“I had the same experience, and I was not happy,” he says. “The messaging was so obscure that I didn’t understand why in the world I had to do it. We really are always on the side of the customer — we just do an awful job at telling them, and explaining the circumstances of what’s happening.”

He continues to explain the background.

“The reason it happened is that there was a change in regulations that forced us. It was an

PayPal's mobile apps are at the heart of the company's user-focused initiatives — the experience starts in the palm of your hand.



anti-money laundering change, where [we had to provide] proof of residence that was less than a year old. That being said, we were more of a project / program-oriented company before, instead of being a product-oriented company. What used to happen is this: you've got a compliance team that sees this new regulation that we have to abide by, and then they write the product requirements to comply. And there wasn't a product manager in there to oversee the end-to-end experience. Now, however, we have that person embedded in the process. He or she would look at the best way to comply with the least amount of friction as possible."

It all boils down to protection. Risk management is quite clearly not just a focus here, it's a necessity. My best guess is that managing and mitigating risk was the primary focus of the Thompson-led PayPal, and while Marcus is certainly concerned with keeping the guard up where necessary, he recognizes that there are better ways to communicate what's happening, why it's happening and how PayPal is there to make life easier.

"The culture needs to be one where there's a presumption of innocence to start with, instead of guilty until proven innocent," he says. "And we're doing that ... massively."

That's a big promise, and it's perhaps the most meaningful one that Marcus makes during our visit. I point out

"IF YOU FIX YOUR CORE PRODUCT EXPERIENCE, YOU HAVE LESS CALLS, AND YOU CAN SPEND MORE TIME HELPING CUSTOMERS. YOU CAN'T JUST FLIP THAT SWITCH OVERNIGHT — IT'S A JOURNEY — BUT WE'RE WORKING REALLY HARD AND FAST TO DO THAT."



that PayPal's communications have been ambiguous at best, and nonexistent at worst, and it's a message heard loud and clear. Mercifully.

... AND SERVE

"When you have 6,000 people sitting in call centers all around the world trying to help our customers, it comes at a huge cost. But, there are better ways to manage cost than to just look at handle time. If you fix your core product experience, you have less calls, and you can spend more time helping customers. You can't just flip that switch overnight — it's a journey — but we're working really hard and fast to do that."

You read that right — nearly *half* of PayPal's entire payroll works solely to field complaints, fix issues and offer resolutions in some seriously hairy situations. I offer up a suggestion that PayPal's guarded nature *must* have been born from being torched one too many times by digital launderers and professional fraudsters, and while PayPal's loss rate is almost unfathomably low by industry standards (less than 0.3 percent), Marcus confirms that it's a daily battle with the dark side.

"There are horror stories — it's just mind-numbing," he says. "We've been burned in so many cases, and seen so many horrible things."

"I'm sure," I reply, but what's become crystal clear to me is just how unsympathetic the outside world has been to this particular woe. I actually make a point to recommend that PayPal make a concerted effort to add transparency to the amount of fraud it's facing — perhaps even detailing a few hilariously depressing stories somewhere on its website — to give its user base a taste of why it can't just assume everyone is a saint. Still, Marcus adds that outrageously long and unwarranted account holds — known more commonly as "frozen accounts" — cannot continue at the same clip. He adds that this particular issue is atop his priority list, and the company is actively changing algorithms and engaging with frequent customers in order to establish a greater level of trust.



“You can mess up a lot of things in people’s lives, but the minute you touch their money, they’re not happy about that, and they shouldn’t be,” he says.

THE NEXT FRONTIER

Throughout my day at PayPal’s headquarters, I’m ushered into a couple of fairly intriguing places. The first is a Product Showcase area, where the company builds mock stores and situations in order to demonstrate how PayPal’s forthcoming retail payment solutions will work in earnest. “It’s a story that’s harder to tell without someone seeing it,” I’m told, and looking back, I’m inclined to agree. You see, PayPal is about to embark on what I’d wager is its riskiest endeavor ever as a company. No, it’s not about expanding to nations where the moods of its leaders are less stable than the currency; it’s about becoming an unmistakable payment option in more than 7 million American retail locations.

Starting in April of next year, PayPal is going to allow its users to pay for goods

PayPal has created an entire demo area to showcase its hopes for Anywhere. “It’s too hard to explain with a slide presentation,” I’m told.



everywhere you see a “Discover Network” sign. And in an era where mobile payment adoption is lagging due to incompatible partnerships, hit-and-miss terminal installations and a general miseducation of what it offers, PayPal’s aiming for an alternative that hits the only mark that matters: ubiquity. The deal makes use of the same VeriFone hardware network that exists today, enabling those with a PayPal Anywhere identity card to just swipe, input their PIN and walk away. Or, for those who don’t want another card, you’ll be able to punch in your phone number and PIN. It’s a process consumers are already intimately familiar with, but the added benefit here is having access to loyalty cards, coupons and spot discounts without even having to think about it.

If you’ve got a coupon or rewards card in your PayPal account — even if you aren’t aware of it — it’ll automatically apply itself at checkout and present you with a digital receipt. Think of it less as a new payment method, and more of an integration of payment, loyalty and coupon cutting.

You may wonder how exactly I could categorize this as a risk, particularly given that the company isn’t really stepping out into a world that hasn’t already shown proven growth potential. The reality, however, is that some who aren’t tightly connected to internet commerce have never even heard of PayPal. And for many who have, they certainly haven’t gone out of their way to use it. Next year, that all changes. Suddenly, PayPal will be labeling itself on the doors of businesses large and small, right alongside the iconic Visa and MasterCard logos that are now synonymous with “trusted payment processors.” Suddenly, PayPal will thrust itself into the mainstream. Suddenly, any privacy violation or database hack won’t just make the rounds on your favorite technology sites, it’ll hit the teleprompters in front of Brian Williams and Will McAvoy.

As I tiptoe into the company’s Network Operations Center, or NOC, I’m immediately blitzed with seven giant projections of lines, charts and graphs — none of which am I at liberty to photograph. It looks like a million digital heart rates, all being intensely monitored by a few dozen men and



women sitting in near-darkness. I get the feeling that if any one of these individuals takes their focus away from the data points, even for a second, the world as we know it may implode. Well, PayPal's world, at least. But, as it turns out, PayPal's world is about to be a lot bigger, and this room full of people who are currently working every moment of every day to ensure that millions of online transactions are processed properly will soon be responsible for managing even more.

IN PAYPAL WE TRUST?

To me, the risk here is obvious: it's a trust issue. Many users, myself included, haven't trusted PayPal for a long, long time. There's just something mysterious about PayPal's behind-the-scenes decisions — decisions that I don't see my bona fide bank making — that make me queasy. Specifically, the idea of never *really* knowing if the company is going to freeze my account following an eBay transaction with a guy in Tangier, and the thought of never *really* knowing if I'll be able to get someone on the other end of the line who genuinely believes I'm not some kind of Madoff in the making.

Judging by the company's skyrocketing earnings (revenues in Q3 2012 were up 23 percent year-over-year to \$1.37 billion), I may be in the minority here. That said, it's wise of Marcus to choose now as a time to focus intently on customer service. If a growing number of consumers stop *trusting* a financial service, it can easily spell death for whatever that service may be. Issues that have appeared on forums like *paypalsucks.com* are still few in number compared to the amount of transactions that are completed sans complaint, but the company's monumental retail efforts will quite simply *force* PayPal to garner the trust of those who give it a whirl next year.


"We can do many things differently and better," Marcus says. "And my standard is not the quality of products that comes from larger companies — be it financial institutions or banks — but my goal is to have the quality and iteration speed of a startup."

Marcus has been in his role as president for less than a year, and he has but a few months to fully morph the culture





of his company into one that respects customer service, and healthily fears the repercussions for dropping even a single ball. I leave his office feeling more assured that there's finally someone in charge at PayPal who means it, and is doing more than just paying lip service. His own reputation is on the line, and his methods are certainly going to be tested once PayPal hits retail en masse.

Did he convince me — one of PayPal's most vocal critics — to trust his company again? I'm going to give the retail experience a whirl come April 2013, mostly because I have a deep appreciation for the technology involved, but I'll still be doing so with a cautious heart. As the great woman who gave birth to me once said: "Trust isn't given, but earned." 

According to Marcus, PayPal will be placing as much focus on customer happiness as it places on its manicured lawns.

Darren holds the Guinness World Record for being the most prolific professional blogger on planet Earth. He's also an astronaut.



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The Helsinki World Design Capital (WDC) 2012 program is a year-long effort to redevelop the city through the application of thoughtful design. With this goal in mind, the Madrid-based Lighting Design Collective (LDC) has rejuvenated an old oil silo, overlooking the city center, into a light-art installation and public space. Using an array of 1,280 LED lights controlled by custom software to react to environmental stimuli such as wind speed, temperature and precipitation, the silo is able to provide fluid, natural and unique patterns to those within or gazing from the city center just across the water.



JOHN THOMPSON



THE ALMOST bassist reminisces about the O.G. Nintendo, first-gen iPods and the unfortunate lack of hover boards.

What gadget do you depend on most?

Hands down it would have to be my iPhone 5. Whether or not I'm on tour, at work or at home, this thing almost never leaves my side. I use it for emails, calendars, talk, text, everything. I also have a few music apps like tuners and metronomes to help me keep my chops when we're on the go.

Which do you look back upon most fondly?

I remember back when I got my first MP3 player, I think it was a first-generation iPod. Just the knowledge that I could have all of my favorite bands in one place that could fit in my pocket was mind-blowing to me. It still is really.

Which company does the most to push the industry?

Well, I'm definitely no expert, but I've personally been an Apple user for years. Almost everyone I know and work with uses some sort of Apple product, and every studio I've been in uses Macs to run their recording software. There's just something about how effortless their products are. The continuity between the Mac OSes and iOSes also makes the jump between products incredibly easy.

What is your operating system of choice?

I'm currently using Snow Leopard on my MacBook Pro, but I'm thinking about switching to Mountain Lion now that it's been out a while. For my phone, I'm running iOS 6. All of Apple's products are really consistent.



“My original Nintendo. I loved playing on that system. Up Up, Down Down, Left, Right, Left, Right, B, A, Start.”



What are your favorite gadget names?

I love the name Roomba; the little robot that rolls around vacuuming your floors. I don't know anyone who actually has one, but almost everyone seems to know the name. Also, the videos on YouTube of cats riding them and terrorizing dogs are some of the funniest things I've ever seen.

What are your least favorite?

This one may not count as a gadget, but it's called the "Crib Dribbler." It's basically like the water drippers that you see in hamster cages but it's meant for babies in their cribs. First of all — What?! That's one of the most senseless things I've ever seen, and the name just makes it worse.

Which app do you depend on most?

As simple as it probably sounds, the app I depend on most would have to be Mail on my iPhone. I work a lot of little freelance gigs when I'm at home and being able to have multiple email accounts organized into one app

makes keeping up with my various jobs much easier. If I had to wait till I got home to check my email, I would lose so much work throughout the year.

What traits do you most deplore in a smartphone?

Smartphones are absolutely a blessing and a curse. This beautiful technology makes day-to-day life so much easier, but at the same time we're quickly getting to the place where we can't live without it. It's undeniably a problem. How many times have you been out somewhere and noticed a group of people huddled near each other, not having conversations, but all nose deep in their smartphones? I'm definitely guilty of it myself. I think we all need to at least take a day or so every now and then and just unplug for a while. Read a book made of paper and have face-to-face conversations with the ones we love.



Which do you most admire?

As simple as it sounds, being able to access WiFi. My band has done a lot of fly-out dates in the past two years and many of them were out of the country. Being able to



Thompson, left, with The Almost at The NorVa in Norfolk, Va.

access the internet and use apps like Facebook and Skype made it so that I was able to keep in contact with my life back home without the need for an expensive international phone plan. Granted, this all depends on having access to WiFi which overseas can sometimes be a real gamble.

What is your idea of the perfect device?

Something that offers all the functionality and stability of a powerful smartphone but is completely hands-free. It's actually kind of scary how close we seem to be to such a thing.

What is your earliest gadget memory?

My original Nintendo. I loved playing on that system. There were so many good games and the systems are still around today. Up Up, Down Down, Left, Right, Left, Right, B, A, Start.

What technological advancement do you most admire?

The new hands-free technology that Microsoft and other companies are pioneering is absolutely amazing and it's definitely where everything is heading. It's been crazy to see what the technology adds to video games, and I can't wait to see how it's implemented into home computers and in public avenues.

Which do you most despise?

The lack of hover boards. Every kid that saw "Back to the Future II" wanted to have one of those awesome hover boards and 2015 is coming quick. Someone should get on that.



What fault are you most tolerant of in a gadget?

My phone can't cook me breakfast yet.

Which are you most intolerant of?

Bad battery life. Is it really a helpful gadget if you have to charge it three times a day?

When has your smartphone been of the most help?

Whenever I get lost in a new place, knowing I have a GPS-enabled map in the palm of my hand has helped me find my way more times than I can remember.

What device do you covet most?

The Tumbler (Batmobile) from *The Dark Knight* trilogy. How awesome would it be to be able to ride that thing around town?

If you could change one thing about your phone what would it be?

I honestly have no complaints about my current phone. I love technology, but ultimately my needs in a device like this are pretty basic and simple. My phone covers them all and more with very few issues. If I had to say anything, fewer dropped calls would be awesome, but that's probably more to do with my provider than the phone itself.


What does being connected mean to you?

"The Matrix has you, Neo..." But really, I think being connected means that I have the ability to meet, interact and work with people from all over the world who I would never have had the opportunity to meet with otherwise. On the other side, whenever I'm away from home, I'll always be connected to the ones I love.

When are you least likely to reply to an email?

When I'm driving. I'm not saying I'm innocent and that I've never done it before, but I really try not to because it really is stupid and dangerous. Don't do it.

When did you last disconnect?

About a month ago, we (The Almost) did a small tour in Central Europe and the lack of a reliable WiFi led me to just turn it off for a couple days at a time. Even though it was weird not being connected, it was refreshing to say the least. I highly recommend a good disconnect from time to time. 



IN REAL LIFE is an ongoing feature where we talk about the gadgets, apps and toys we're using in real life.

KLIPSCH IMAGE X7i IN-EAR HEADPHONES

Let's go ahead and get one thing out of the way: I might just be Klipsch's biggest fan when it comes to earbuds. In fact, I've long adored Klipsch's unique aural qualities across all of its speakers.

The earbuds that never leave my side are Klipsch's own Image X10i. Yes, they're pricey, but they sound *amazing*. When testing out the X7i — a logical step-down from the X10i — I found the new flat cabling to be a bit jarring. It's supposed to reduce tangles, and it does an admirable job, but I still prefer the familiar rounded cords. The inline microphone and button stick worked well with my

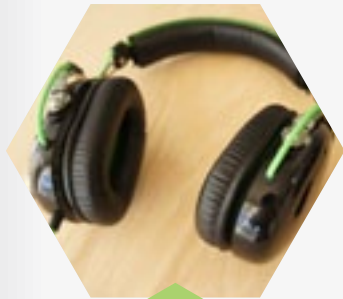
iPhone 4S, and I'm a huge fan of that stick being at the "V" of the left / right earbud cords. Some headphones place it up near the chin on the right earbud cord, which I've always found annoying.

The oval ear tips are included, and fit

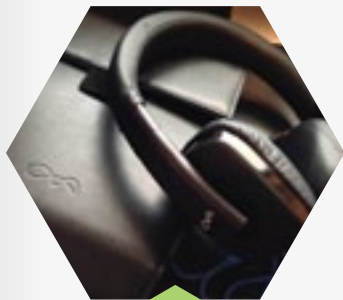
like a glove, but there's a design decision here that I'm not entirely fond of. The speaker driver housing itself is angled. Instead of sliding straight in, as with the X10i, it sits slightly back in your ear and with the flat, rigid cabling it constantly felt as if something unnecessarily long was sticking out of my ear. While I'm on the topic, the straight 3.5mm jack should be a right-angle jack — at the very least, an adapter should be thrown in.

Nitpicks aside, the sound is truly outstanding. It's typical Klipsch — soothing bass, punchy mids and a lighter range of highs that most folks either love or hate. In A/B testing, the bass output of the X10i is still superior, and at \$270 on Amazon, I'd suggest ponying up the extra \$70 for the X10i over the X7i (currently priced at \$200). Or just nab the X7i and don't look back. You'll never know what you're missing out on if you don't hear the X10i, and every other in-ear headphone just won't fit as nicely. (Thanks, ovals!)

— *Darren Murph*



Razer
BlackShark
Gaming
Headset



BlueAnt
Embrace
Headphones



IN REAL LIFE is an ongoing feature where we talk about the gadgets, apps and toys we're using in real life.

RAZER BLACKSHARK GAMING HEADSET

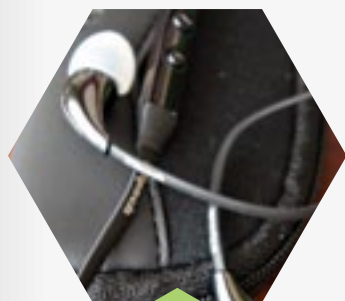
I was fortunate enough to catch a glimpse of the first *Battlefield 3*-branded Razer BlackShark headset back at E3 and I'll admit, I was immediately smitten. I didn't even get a chance to go ears-on with one on the show floor but it didn't matter. It looked striking and that was enough to grab my attention. The only downside — besides not being able to test drive a pair — was that I wasn't too keen on having that game franchise written across the headband.

Luckily for me, the company would release a regular option, done up with all the classic Razer trappings. The same retro aviator stylings were in play — the ones

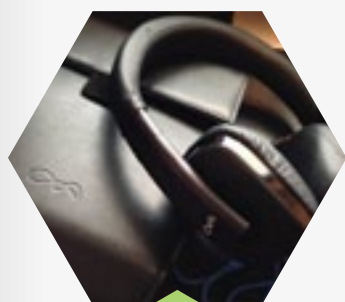
that initially piqued my interest at the start of the summer, complete with boom microphone. In addition to some stellar aesthetics, these cans are well built, too. Sure, the outer shells of the earcups are made plastic, but the use of faux leather, bright green stitching and exposed metal makes up for any shortcomings. Of course, the plastic keeps the weight down, which is another welcome trait. In fact, these bad boys are fairly lightweight — lighter than you'd think, given their industrial looks.

As for sound quality, the BlackShark does an admirable job. Bass plays a prominent role, but the low-end never seems overpowering when I listen to Big K.R.I.T. alongside my Galaxy Nexus thanks to the detachable mic. Whether I'm playing games or using these as regular ol' headphones, the overall sound quality is clear and doesn't get distorted — not even when I jack the volume up to a nearly deafening level.

— *Billy Steele*



Klipsch
Image X7i
In-Ear
Headphones



BlueAnt
Embrace
Headphones



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BLUEANT EMBRACE HEADPHONES

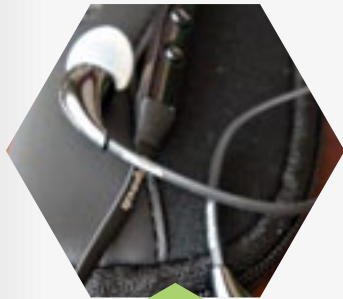
Let me start by saying that I am not a headphones connoisseur by any means — heck, I'm somewhat known (and made fun of) for being the editor using Apple EarPods as daily drivers. Still, as with so many other folks, something eventually hit the market that persuaded me to step it up. Enter the BlueAnt Embrace.

For starters, the Embrace does an amazing job at blocking out the street noise around New York City, which is a huge plus given that I mostly use these during my daily commutes. What's more, they're extremely comfortable to wear, thanks to the supple leather cushioning those 40mm

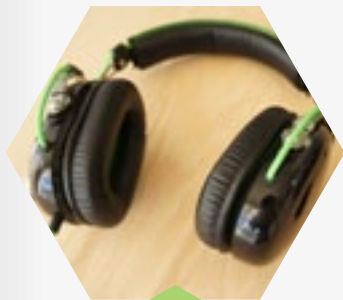
drivers. Add in some metal and minimalist BlueAnt branding, and you've got an eye-catching, but still subtle design.

How about the sound, you ask? Well, as I said, I'm not exactly an audiophile, but to put things in perspective, I can hear refined guitar riffs and delicate melodies that I wouldn't be able to hear on my \$29 EarPods, which is fair, since the Embrace carries a pricier \$99 tag. And while BlueAnt touts the headphones as being friendlier with iOS devices, I've had no problem pairing these with any of my Android devices (granted, the in-line remote / mic does face some hic-

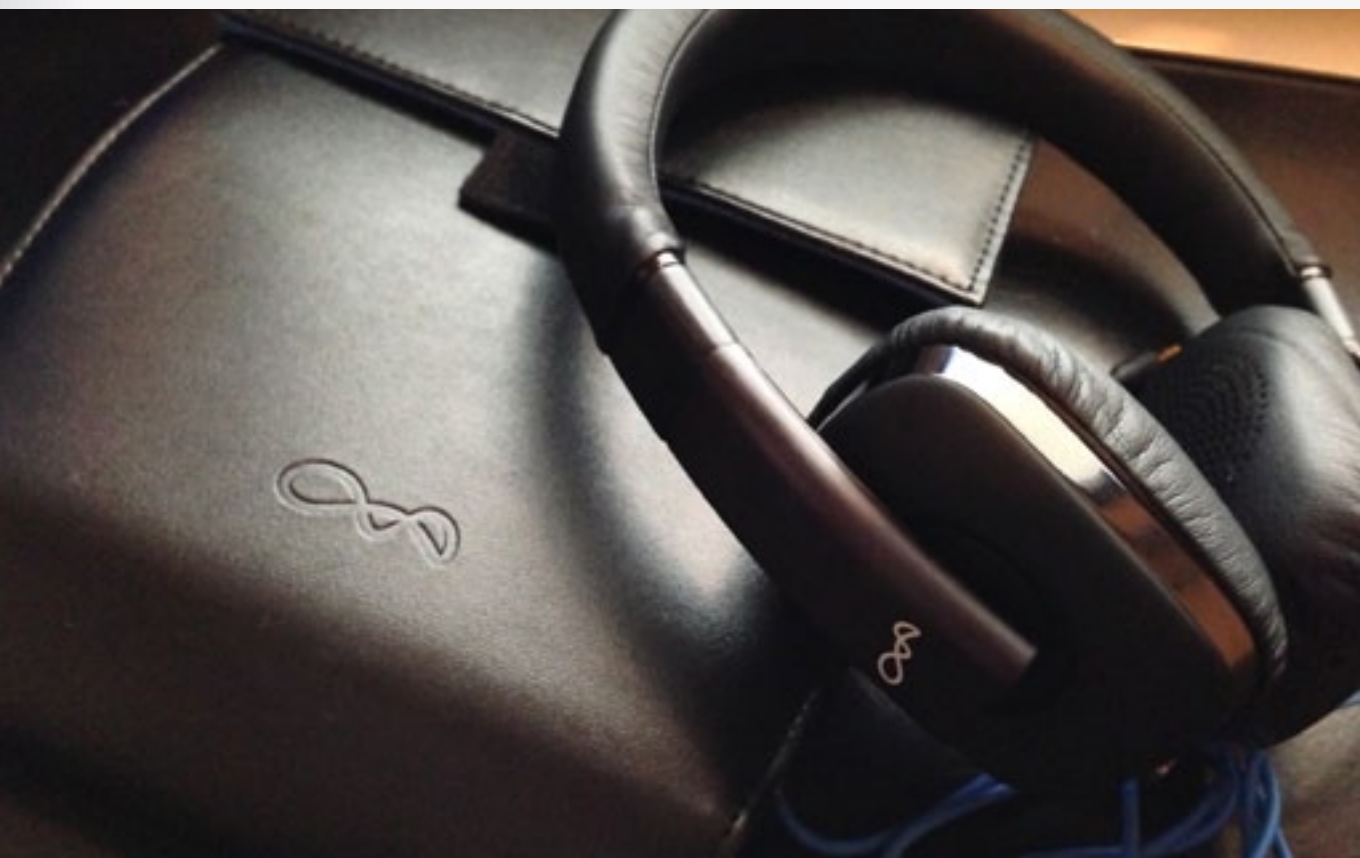
cups every now and then). Suffice to say, the Embrace managed to find a place inside my daily gadget arsenal, but keep in mind that when it comes to headphones, my standards are not quite as high as, say, my colleague Joe Pollicino's.
— *Edgar Alvarez*



Klipsch
Image X7i
In-Ear
Headphones



Razer
BlackShark
Gaming
Headset



The week that was in 140 characters or less.

Hoverless and Wii're Not Happy

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12.07.12

ESC

REHASHED

@JoannaStern

So wait... now even Google's own apps are better for the iPad than Android tablets?

@kndis

We've been texting for 20 years now but I still can't buy a hoverboard. The future is junk.

@AlyssaRosenberg

Oh, hey, Netflix finally has a better idea than keeping alive shows that NOBODY CARES ABOUT

@phonewisdom

Anyone excited about the new Sony Xperia Eeeeeeyeahnobodycares?

@jrvolpe

Oh goodie. Got my Wii U back just in time for another hours long system update which fixes "system stability." Neat. So, who wants a Wii U?

THE STRIP

BY SEAN PRYOR

THE REC ROOM BY SEAN PRYOR 2012



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